



Class LB1044

Book A2V5

Copyright N^o _____

COPYRIGHT DEPOSIT



Scanned from the collections of The Library of Congress



Packard Campus
for Audio Visual Conservation
www.loc.gov/avconservation

Motion Picture and Television Reading Room
www.loc.gov/rr/mopic

Recorded Sound Reference Center
www.loc.gov/rr/record

VISUAL EDUCATION

TION

1⁰⁰ a Year

In This Number

How One School Uses Motion Pictures. *Edwin Y. Montanye*
Visual Methods in the Chicago Schools. *Dudley Grant Hays*
The Place of Graphs in Business *Elizabeth Wigginton*
Models as Visual Educators *F. M. Jewell*
"How We Secured Our School Projector"
The Picture Hour

JANUARY 1922

Published by the
Society for Visual Education, Inc.

15 cts 1.00 a year

THIS ISSUE: *Playing the Health Game*

LB1044
A2 V5



*The Picture
is the
Quick, the
Intense Way
of
Presenting
the Truth*

© K. V. Co.

HULLING RICE FOR BREAKFAST, LUZON, P. I.

Why pound away on definitions and memory work?
Let your pupils *see* and understand.

Show them the things studied.

The Keystone System for Visual Education furnishes the material.

Six hundred stereographs and lantern slides, carefully chosen and classified by expert teachers, are available in this system.

A Teachers' Guide, completely indexed, points out daily uses.

Write for classroom demonstration.

KEYSTONE VIEW COMPANY, Inc.

"Originators of Systematized
Visual Education"

Dept. V.

Meadville, Pa.

*Keystone has purchased the Stereoscopic and Lantern Slide
Department of Underwood & Underwood*

IF YOU SAW IT HERE, PLEASE SAY SO

Get Acquainted With Your Neighbor You might like him

You may join your neighbors in your own community, and in many others, in a nation-wide movement for

Man-Building

Business-Building and

Community-Building

This opportunity is offered you through associate membership in

THE BUSINESS SCIENCE SOCIETY

An organization of men and women who are studying natural laws related to human activity, and who believe in the *PRINCIPLE OF SERVICE*.

May we tell you more about it? Address

MARTIN L. ZOOK

Division of Associate Membership, The Business Science Society

77-79-81 Madison Avenue

MEMPHIS, TENN.

265
1991
Pat 60

THE AMERICAN MATHEMATICAL MONTHLY

OFFICIAL JOURNAL OF

The Mathematical Association of America

Is the Only Journal of Collegiate Grade in the Mathematical Field in This Country

This means that its mathematical contributions can be read and understood by those who have not specialized in mathematics beyond the Calculus.

The Historical Papers, which are numerous and of high grade, are based upon original research.

The Questions and Discussions, which are timely and interesting, cover a wide variety of topics.

Surveys of the contents of recent books and periodicals constitute a valuable guide to current mathematical literature.

The "Topics for Undergraduate Mathematical Clubs" have excited wide interest both in this country and in Great Britain.

The Notes and News cover a wide range of interest and information, both in this country and in foreign countries.

The Problems and Solutions hold the attention and activity of a large number of persons who are lovers of mathematics for its own sake.

There are other journals suited to the Secondary field, and there are still others of technical scientific character in the University field; but the monthly is the only journal of Collegiate grade in America suited to the needs of the non-specialist in mathematics.

Send for circular showing the articles published in the last six volumes. Sample copy and all information may be obtained from the

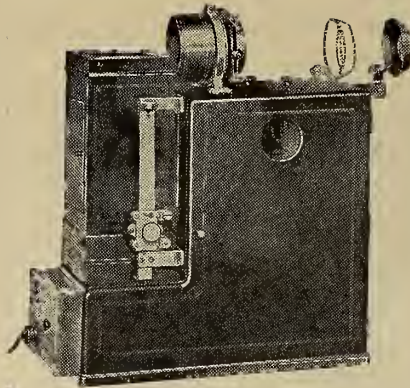
SECRETARY OF THE ASSOCIATION

27 King Street

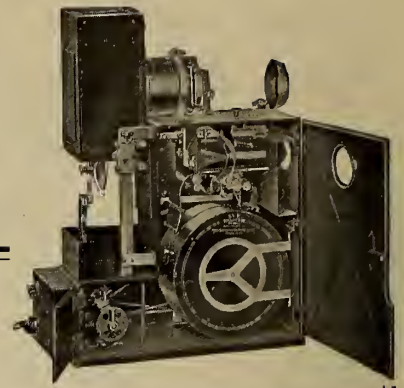
OBERLIN, OHIO

100 a Year

THIS ISSUE: *Playing the Health Game*



This cut shows the lamphouse in position for projecting motion pictures. Merely raising the lamphouse converts the machine in an instant into a stereopticon.



This cut shows the lamphouse in position for projecting stereopticon slides. While slides are being projected, the operator may be changing reels. Inside pilot light serves his needs.

The "ACME" S. V. E.

A Combined Film-and-Slide Projector

A SEMI-PORTABLE Motion Picture Projector that is superior to any other similar machine ever offered, with Stereopticon Attachments of equally high quality—a combination that offers *the ideal projector* to Schools, Churches, Community Centers, Y. M. C. A.'s, Institutions, Women's Clubs, Lecturers, etc. So simple to operate that a boy can conduct the showing.

ONE Machine That Does the Work of TWO

APPROVED

By the National Board of Fire Underwriters



HOME OF THE "ACME" S. V. E. PROJECTOR

The largest plant in the world devoted to the exclusive manufacture of portable and semi-portable projectors

THE "Acme" S. V. E. is the ONE machine with which you can give a combination film-and-slide program without delays for readjustment. The transformation is practically instantaneous—you have only to move the lamphouse up or down.

Slides can be shown at any point in the film, to introduce new matter or give added emphasis to some particular feature. Slides can be thrown on the screen during the wait between reels. Thus there is no let-down to the interest and attention of the audience—an advantage that appeals to speakers and chairmen of programs.

**Some Other Features That Make the "Acme" S. V. E.
The Projector Without a Peer
For Classroom and General Non-Theatrical Use:**

Safety automatic shutter
Center-dividing metal film magazines
All-metal (aluminum) case

Instant framing and focusing
Unequaled illumination
Motor-driven independent re-wind

The "Acme" Portable Booth

For schools and churches where a booth may be necessary. Mounted on rubber-tired casters. So designed and proportioned that it can be taken from room to room, through any doorway, without taking apart. Compact and substantial. Made of 20-gauge iron, black enameled.

The "Acme" Auto Generator

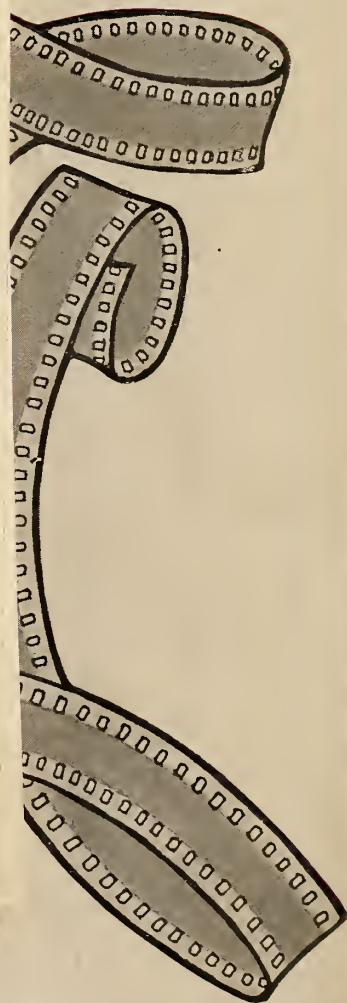
Makes moving pictures possible where electricity is not available. Provides current for lighting home, grounds, church or school. Can be operated on any automobile—attaches to running board. No mechanic necessary. Weight, 50 lbs. Generates standard 110 volts; capacity, 1050 watts.

For prices and other information address

ACME MOTION PICTURE PROJECTOR CO.

806 West Washington Boulevard . CHICAGO, ILLINOIS

TION
100 a Year



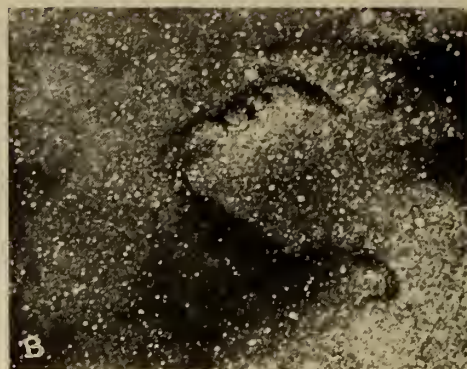
THIS ISSUE: *Playing the Health Game*

LANTERN SLIDES

Professor Edwin B. Frost and his staff of Yerkes Observatory have selected and can furnish, in sets of one hundred, choice slides on the following subjects: Solar Phenomena; The Moon; The Planets; Comets; Stars and Clusters; Nebulae; The Milky Way; Stellar Spectra; Buildings and Instruments.

This "hundred list" is issued for the benefit of institutions or individuals desiring a small collection thoroughly representative of present astronomical science. The price of the lantern slides is 75 cents each, but for this special collection of one hundred slides, the price is \$62.50, a saving of approximately \$12.00. Carriage is charged to the purchaser.

Send for our circular describing the Select List of One Hundred Slides



Dark Markings on the Milky Way

The University of Chicago Press

5791 Ellis Avenue

Chicago, Illinois

Every Teacher Is a Salesman

THE teacher "sells" education to more or less reluctant prospective "customers." He represents one of the most important "lines" in the world. Business thinkers tell us that the principles of Salesmanship underlie *all* practical human activities; that a knowledge of the methods of successful selling enables the minister to be a more efficient and successful minister, the lawyer a better lawyer, and so on. If this is true—and it is—it will *pay*, as well as entertain and interest and inspire you, to read "The Main Entrance to Successful Selling," as it has been called: **HOW TO SELL—AND WHAT**. In order to make it as easy as possible for you to get acquainted with this Popular Periodical of Selling Pep and Punch, we are making educators this

Special Introductory Offer

HOW TO SELL
—and What—

3 Months for Only 25 Cents

We have another reason. We want you to know this unique Experience Exchange and Clearing House of Sales Information, because we want you to be in a position to tell ambitious young people about it when they come to you for vocational advice. *You* need to know about selling, you see, to guide *them* into this Profession of Golden Opportunity. Three months for 25 cents (stamps or coin) if you mention **VISUAL EDUCATION** and address

KABLE-SPALDING CO., Dept. 55—22 W. Monroe St., Chicago

JAN 21 1922

©C1B522579

Visual Education

A MAGAZINE DEVOTED
TO THE CAUSE OF
AMERICAN EDUCATION

Rollin D. Salisbury, President - Harley L. Clarke, Vice-President
Forest R. Moulton, Secretary - Carl H. Mote, General Manager
L. M. Belfield, Managing Editor



Subscription \$1.00 a year.
Single copies 15 cents.
Published every month
except July and August.

VOLUME 3

JANUARY, 1922

NUMBER 1

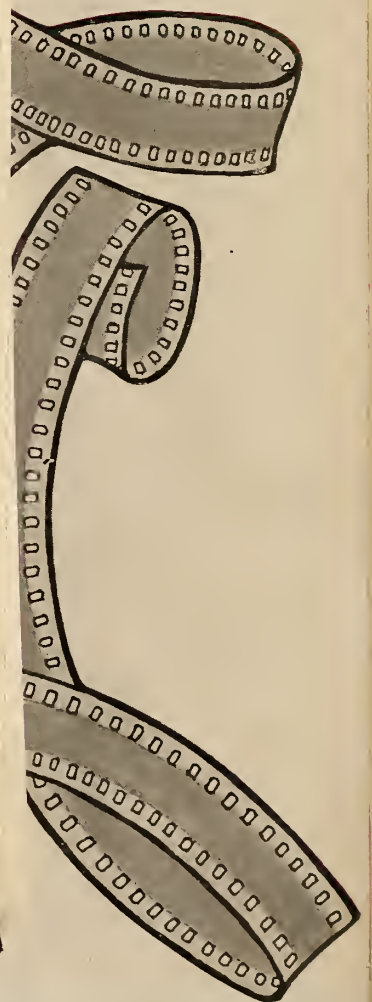
IN THIS NUMBER

How One Philadelphia School Uses Motion Pictures.....	6
<i>Edwin Y. Montanye</i>	
Visual Methods in the Chicago Schools—Part II.....	11
<i>Dudley Grant Hays</i>	
The Place of Graphs in Business.....	17
<i>Elizabeth Wigginton</i>	
Models as Visual Educators.....	21
<i>F. M. Jewell</i>	
Miscellany	25
Vocational Notes and News Items.....	29
The Picture Hour (Puritans Going to Church).....	30
<i>Mary McKenzie French</i>	
"How We Secured Our School Projector".....	31
The Films in Review.....	33
The Film Field.....	38
Projection Queries and Answers.....	40
"Here Are Books".....	42

Published by the Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago 220 W. 42nd Street, New York

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

Visual Education



How One Philadelphia School Uses Motion Pictures

EDWIN Y. MONTANYE

Principal, James G. Blaine Public School, Philadelphia, Pa.

MOTION pictures have formed a part of the regular instruction in certain branches in the James G. Blaine School since September, 1920. At the suggestion of the principal, the Home and School Association purchased a standard motion picture machine and presented it to the school. The Board of Education installed the required fireproof booth and supplied the electric light and power, placing the full equipment in the auditorium of the school. As the city ordinances governing the operation of motion picture machines require licensed operators, one of the male teachers has qualified to act in this capacity.

In order to get a bright picture, what is commonly known as a silver screen has been hung on a spring roller. Dark shades at the windows make it possible to darken the auditorium in a few minutes.

Method of Using Motion Pictures

Since the Blaine School is organized

on the duplicate plan, a modified Gary System, the auditorium is in constant use throughout the day. On Friday of each week the entire day is given over to visual instruction in the auditorium. Five groups of pupils spend one period of fifty-five minutes in this room. In this manner, approximately twelve hundred children receive a period of motion pictures during the course of the day.

While the pictures are being thrown on the screen, a teacher gives such explanation or supplementary instruction as is demanded for a good understanding of the subject. Care is exercised to see that the teacher does not talk too much and thus distract the minds of the observers. Lecturing is a practice which can easily be abused. The average film is well captioned and can be read and understood by most children of grade five and beyond. However, the tactful teacher can point out situations in the picture which will help very materially in the comprehension of the subject.



NO BORED EXPRESSIONS IN THIS GROUP

At the conclusion of the picture, opportunity is frequently provided for pupils to discuss the subject while they are still in the auditorium. Incorrect impressions are thus cleared up and the particular message of the reel is driven home to the pupils' minds. At other times the lesson is reviewed by pupils in their respective departmental classes, where a more exhaustive treatment is permitted.

The method of rotating classes has the advantage of economy in the use of films, since the same reels can be used throughout the day with varying grades. The quality and nature of the teaching, obviously, is adapted to the maturity of the children in the audiences. The average reel consumes about fifteen minutes of the period; hence, from two to three reels will supply the daily program of motion pictures. In order to reduce eye-strain to a minimum, the work of demonstrating the pictures is alternately handled by the several auditorium teachers in

charge. Similarly, the control of the machine is divided between the licensed operator and a teacher assistant.

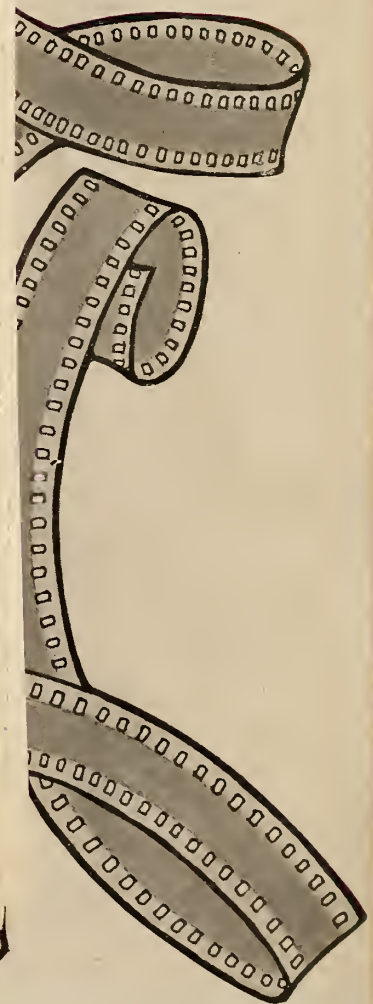
Special Value of Geography Films

The range of subjects adapted for this method of instruction is, as yet, somewhat limited, but there is reason to believe that the near future will extend this limit to cover most of the subjects in the school curriculum. Among the most accessible at present are films on geography, history, civics, hygiene, literature and industrial studies. Many of these are edited for educational purposes exclusively and are well suited for classroom use.

In geography there is scarcely a country that is not well covered with suitable motion picture material. The pictures tell their own story and supplement the instruction in the classroom to a degree that is almost impossible by any other method. That the impressions are lasting can be confirmed by testing pupils after long intervals. Invariably the testimony of the teacher is that the knowledge gained from the

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

pictures outlasts all other forms of instruction possible in school.

The infinite details that might go to make up a child's concept of, say, life in India, would be gained only after hours of reading, while possibly fifteen minutes would be consumed in portraying the same information on the screen. Moreover, there is less likelihood of untrue and false impressions being gained by the visual method. Difficulties of language interpretation are overcome; pictures have a universal language and a common appeal to all grades. Furthermore, the number of pupils who can be instructed at the same time by this method is limited only by the capacity of the auditorium.

As to History and Literature Films

What is true of geographical material is likewise true of that in industrial studies, and to a lesser degree, in films covering civics and hygiene. However, when it comes to historical and literary material, the imaginative element plays a very important part. Scenes portraying historical events must be dramatized apart from their original setting and the characters, costumes, incidents, etc., must be reproduced from individual impressions gained from a study of the past. Obviously, it is likely that a very varying interpretation will creep in and there is danger of distortion. Nevertheless, the careful teacher can readily correct these impressions by judicious comment and supplementary instruction. Probably the danger from this form of historical teaching is no greater than from the study of the common textbooks in use in schools today, since they are all more or less colored by

the limitations of the authors. This naturally leads to the observation that all films used for educational purposes should be edited by authorities in the several fields of school instruction.

In the field of literature, possibly the greatest danger lies in substituting the picture for a study of the work gained through reading. This can be obviated by showing the picture only after the book has been read in class or through assignment. In no case should the visual presentation be used as a short-cut to cover a wide range of literature. A valid use of the pictures would be for supplemental review and illumination, or for the purpose of stimulating an interest in the work preparatory to reading.

Sources of Film Material

One of the most perplexing problems in dealing with motion picture instruction is to finance the film supply. Whether film is secured from sources of free distribution or from regular distributors of commercial film, there is considerable expense to be met. Transportation charges in both directions must be paid by the borrower. In the Blaine School, an organization of the parents mentioned earlier in this article takes care of the costs. Since the pictures are used in the regular school work, no admission charges can be collected from the pupils. However, by permission of the Board of Education after-school paid entertainments can be held in the auditorium, when funds are accounted for to the school authorities, and expended for legitimate school purposes. Last year our annual play and dance netted sufficient funds

to take care of motion pictures for at least two years.

In Philadelphia a considerable library of film is available for free school use at the Philadelphia Commercial Museum, of which Charles R. Toothaker is curator. The Pedagogical Library of the Philadelphia Public Schools also has a small library of reels. In addition to these sources, we have secured the use of many reels from industrial firms and other business houses in Philadelphia and other parts of the

country. The General Electric Company of Schenectady, New York, has developed a very valuable collection of industrial films, all of which can be profitably used in the school. The Department of Agriculture, Washington, D. C., and the Bureau of Mines, Pittsburgh, Pa., have supplied many of our geographical and industrial pictures.

The following program of pictures has been scheduled for the Blaine School for the term ending January 31, 1922:

TITLE	SOURCE
Queen of the Waves.....	General Electric Co.
Hats Off! A Story of the Flag.....	Society for Visual Education.
The Benefactor (Edison).....	G. E. Co.
"Big Deeds"	G. E. Co.
Scenes in India	Phila. Com. Museum.
Back to the Farm.....	G. E. Co.
Butte, Anaconda & Pacific R. R.....	G. E. Co.
King of the Rails.....	G. E. Co.
Every Swimmer a Life-Saver.....	American Red Cross.
Cuba, the Island of Sugar.....	G. E. Co.
The Sugar Trail	G. E. Co.
The Soap Industry.....	Kirkman & Co.
Forest Fire Prevention.....	Dept. of Agriculture.
Winged Guardians of the Forest.....	Dept. of Agriculture.
Trailing Forest Fires.....	Dept. of Agriculture.
What a Careless Hunter in the Woods	
Can Do	Dept. of Agriculture.
A Woolen Yarn.....	G. E. Co.
Our Daily Bread.....	G. E. Co.
Japan—Silk Culture.....	Phila. Com. Museum.
The Silk Worm—Life-History.....	Phila. Com. Museum.
Velvet	Phila. Com. Museum.
Rubber Industry in Brazil.....	Phila. Com. Museum.
Hawaii—Life and Industries.....	Phila. Com. Museum.
Winning Her Way.....	American Red Cross.
Making the Desert Blossom.....	American Red Cross.
Along the Riviera.....	American Red Cross.
Story of the Orange.....	American Red Cross.
Venice	American Red Cross.
Granite Paving and Curbing.....	Dept. of Agriculture.
Pineapple Culture.....	Phila. Com. Museum.
Kilauea	Phila. Com. Museum.
Legend of Clean Milk.....	Phila. Inter-State Dairy Co.
Perfect Children	Phila. Inter-State Dairy Co.
Panama Canal	G. E. Co.
Beyond the Microscope.....	G. E. Co.
What Sherman Said.....	American Red Cross.
The Fall of Kiev.....	American Red Cross.
When the Fishing Fleet Comes Home....	American Red Cross.
Children of the Sahara.....	American Red Cross.
The Famine in China	American Red Cross.
Health Campaigns in China.....	American Red Cross.



Films secured within the city limits of Philadelphia are usually transported by pupil messengers; those from a distance are shipped by parcel post. Since all film is transported in standard fire-proof metal containers, there is little time consumed in packing and addressing.

General Observations

It is needless to say that the motion picture lessons are exceedingly popular with the pupils. They look forward to these periods with eagerness and enthusiasm, and evidence a feeling of having added considerably to their store of information at the conclusion of the "too short" hour. The motion picture outfit is regarded as one of the most valuable pieces of educational equipment in the building. While there is no attempt to use this

equipment for merely entertainment purposes during school hours, it often serves in this capacity for parents' meetings, community gatherings and Americanization work conducted in the

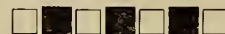
Blaine School. Recently classes in the evening school were assembled to receive instruction through "the movies."

It is claimed by those who have made careful study of the subject that out of every one hundred impressions received by the mind, eighty-seven come through the eye. If this be true, the motion picture machine in the schools needs no defense.

The short experience covered in the range of this article leads the writer to urge the introduction of this kind of instruction in school systems generally throughout the country.



PUPIL MESSENGERS RETURNING
LOCALLY BORROWED FILMS



IN the long run, what is happening in the schools of Japan is of more importance than what is happening in her dockyards.—H. G. WELLS.

Visual Methods in the Chicago Schools*

DUDLEY GRANT HAYS

Director of Visual Instruction, Chicago Public Schools

PART II

THERE are many ways of presenting thought-stimulating topics to pupils. We do not believe any one way is the best way. So many factors enter into the problem of teaching that the wisest selection of materials and methods of lesson presentation from one standpoint may not be the wisest from some other standpoint. The developing ability of pupils to perceive relationships between causes and effects and to realize their own growing powers as causal agencies which they can more and more use to advantage in attaining some desired objective, should not be overlooked.

Self-Expression Fundamental Aim

That general plan of school work which makes provision for great participation on the part of the pupils and a minimum amount on the part of the teacher is, generally speaking, preferable. Compared with results that the teacher can produce with her more highly-trained mind or defter hands, those produced by pupils may seem crude; but we realize that exercising the teacher's muscles or brain-cells will do little toward developing mind and muscle in her pupils. Some very crude results may be excellent from certain

viewpoints. The idea of relativity has a place in life's work.

As in other phases of school work, some rather crude products have a justification. The encouragement of pupils to express, to the best of their ability, their conception of the lesson content is fundamental. Until the pupil emerges from himself in expression, but little service can be rendered him in guidance toward higher attainment.

Impression Precedes Expression

Need we suggest the great importance of abundant *impressions* before we exact *expression*? Is not the sequence so self-evident as to call for no argument? Then how essential that we lay hold of all available materials for sensory development and thereby make expression activity a joy rather than a task. Both phases of this idea are briefly treated in this limited article.

Many teachers have encouraged pupils to work in groups, making model Eskimo villages in miniature on a sand-table, at other times constructing a Pilgrim settlement or a little model farm. These efforts to visualize story content always fascinate pupils and are splendid opportunities for developing ingenuity in expression with things. They lead to appreciation of

*This is the second of a series of articles by Mr. Hays and his assistants in the Department of Visual Instruction. The first article appeared in the December, 1921, issue.

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

museum exhibits of racial and other groups and of mounted specimens.

Portable. Museum Exhibits

The N. W. Harris Public School Extension of the Field Museum has several hundred portable cabinets containing splendid exhibits of nature objects which are circulated among the Chicago schools. These carefully-mounted materials are artistically and scientifically treated by skilled experts and are supplemented by descriptive placards which interpret the contents of the cabinets in a most helpful manner. The cases are of uniform size, about two feet square on the face and from six to ten inches in depth, according to the nature of the contents. They are fitted with hooks to attach to standards which can be moved from room to room with ease. The contents and the reading matter are about on the level of the average height of pupils, making them convenient for study.

When being transported, the placards telescope into a pocket at the rear of the cases and when desired can be drawn out at the side for reading. The descriptive matter is very brief, accurate and suggestive. In the cut here submitted the placard slides have been pushed in to save picture space, but other photographs of these portable cabinets showing the complete exhibits as installed for use appeared in the September and October issues of VISUAL EDUCATION.

The mountings are made to reproduce for us the habitat of the bird or animal. This is so artistically done, by a judicious combination of nature materials and painted backs to the case interior, that the resultant impressions are very realistic.

The home environment of the Ruffed Grouse, wherein can be seen the tangled brush and the trunks of old fallen trees, suggests vividly the secluded life lived by these birds. The absence of leaves on bushes and trees indicates either early spring or late fall. Which is it? More thoughtful observation of the family group will bring to light the answer. The young chicks will help you.

Much more can be read into, or out of, the picture. Note the proud, alert attitude of the male bird, whose sharp eyes guard the little family. The busy hunt among the leaves to find a hidden worm for her babies shows what loving care is being given by the mother bird. The descriptive matter on the accompanying placard suggests drumming and the season when it is heard.

The plumage worn by these birds offers a good subject for descriptive composition. The relation of these wood folk to others that inhabit the forests and unfrequented places will stimulate interest in a hunt through books for information and awaken a desire for further nature study. The rabbits, squirrels, deer, owls, bears, and stories of hunting trips in quest of them may call to mind the story of Hiawatha, so full of animal life. It may be that lantern slide pictures, which can readily be obtained, will be more appreciated after a careful study of the specimen cabinets.

Home-Made Lantern Slides

The class will find it interesting and stimulating to try its hand at making lantern slide sets of its very own. In a number of Chicago schools, pupils have worked out some helpful illustra-



THE RUFFED GROUSE

A type of the habitat bird groups figuring in the collection of portable museum exhibits which are being circulated among Chicago's schools through the co-operation of the N. W. Harris Public School Extension of Field Museum of Natural History. Not shown in the photograph are labels in sliding frames attached at each side of the case, in which is told the story of the bird and its habits. An excerpt from that on the Ruffed Grouse reads: "The male bird, principally during the mating season, makes a peculiar drum-like sound by rapidly beating his wings against the air between them and the sides of his body. This 'drumming' serves as a signal to the female."

tive matter without the use of a camera.

They used plain glass, cut to the size of $3\frac{1}{4} \times 4\frac{1}{4}$ inches, the exact size of the standard stereopticon slide. Two cover glasses such as are used in making lantern slides are still better. Pictures were drawn on paper or cut out of paper, pasted on one glass and then covered by the other, the two glasses being held together by strips of gummed paper generally called binding paper or passepartout tape. When fin-

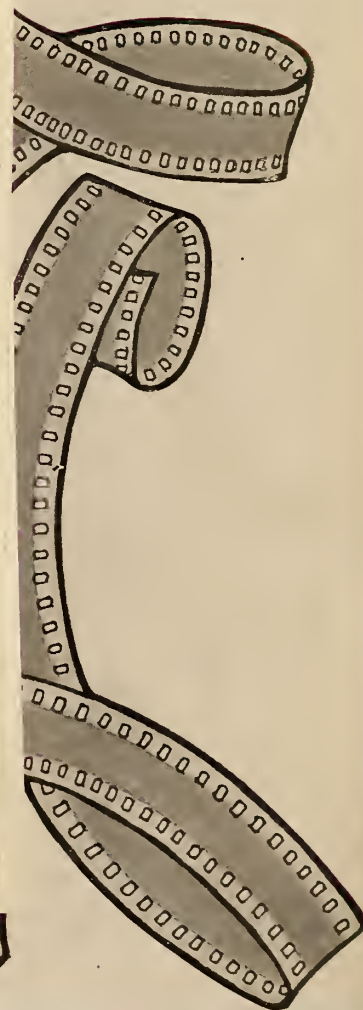
ished, the slides were put into the lantern as usual and very large pictures projected upon the wall or curtain provided for this purpose.

Coating Slides with Gelatin

Some pupils have drawn ink sketches on the glass by means of a pen and India ink, thus making lantern slide pictures. The ink will adhere to the glass if the slide is first covered with a very thin film of gelatin which has been dissolved in boiling hot water. A

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

tablespoonful of ordinary cooking gelatin in a pint of water will serve to coat hundreds of slides. Be careful to have the glass perfectly clean and dry, then coat it with the gelatin solution by holding the glass flatwise before your eyes, pouring a few drops of the solution on the surface, and spreading it evenly with your finger. Rub over the glass thoroughly, until a film of the solution is seen to wet the entire surface, then place the glass in a horizontal position until it dries. If laid in a warm place, it will dry in a very few minutes. You can then write, draw or paint on the surface as you would on paper, and the ink or water color will stay where you put it.

Making Typewritten Slides

Typewritten slides, too, can readily be made by teacher or pupil. The method in this case is to secure sheets of gelatin about twenty inches square from one of the supply houses handling photographic materials. These large sheets of film can then be cut to slide size and placed between two pieces of carbon paper, carbon side toward the film, so as to produce a carbon impression on both sides of the gelatin. Carbon and gelatin sheets, together with a backing sheet, can then be inserted in the typewriter just as is done in making a carbon copy of an ordinary letter. By using such typewritten slides the teacher can save time, effort and valuable board space when it comes to placing before the class study outlines, spelling rules, test questions, and other similar material which lends itself easily to typing.

"Hiawatha" and "The Little Red Hen"

The accompanying cuts show a few

slides made by young boys and girls in their first efforts to illustrate a story they were reading. While their pictures were not so beautiful as those purchased from commercial slide companies, yet they represented the work of schoolmates, and each pupil could place his own special slide within the lantern and show on the screen a large picture of his own making.

One group of boys and girls made twenty-six slides to illustrate the story of "Hiawatha." Some of these simple slide sketches are here pictured. Another younger group made some twenty-five slides to illustrate the familiar story of "The Little Red Hen." A few of their crude efforts are likewise reproduced.

How the Slides Were Made

Figures 2 and 6 in the "Hiawatha" set were made by pasting paper cutouts on the glass slides. The groups were cut from ordinary "composition paper," the children tracing the outlines from pictures in their books. In the case of Figure 5, the pupil chose a black-and-white drawing found in a magazine, used his scissors to silhouette trees and deer, and then supplemented the cutout with an art touch of his own by applying the gelatin solution to the lower part of the slide and adding a few reflections in India ink. Projected on the screen, all these white figures show, of course, as black silhouettes.

The slide shown in Figure 3 was made by using a sheet of gelatin film as a drawing surface instead of the glass. After being cut to slide proportions, the gelatin square was laid over an illustration in a book and the outline of the papoose in its linden cradle was traced with India ink. Then, using



Figure 1
"By the shining Big-Sea-Water
Stood the wigwam of Nokomis."



Figure 4
"Many things Nokomis taught him
Of the stars that shine in heaven."



Figure 2
"And the wrinkled old Nokomis
Nursed the little Hiawatha."



Figure 5
"And a deer came down the pathway."

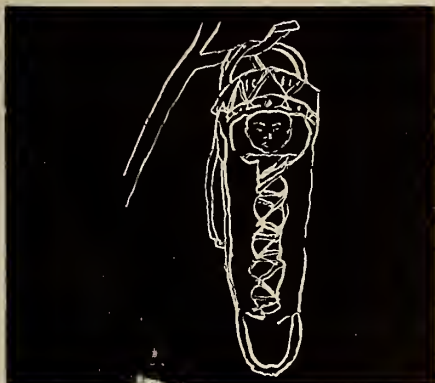


Figure 3
"Rocked him in his linden cradle."



Figure 6
"Made a feast for Hiawatha."

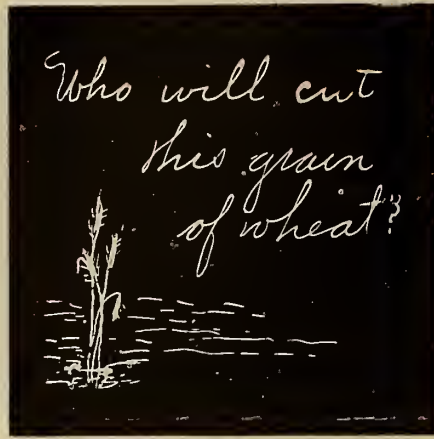


Figure 7



Figure 8

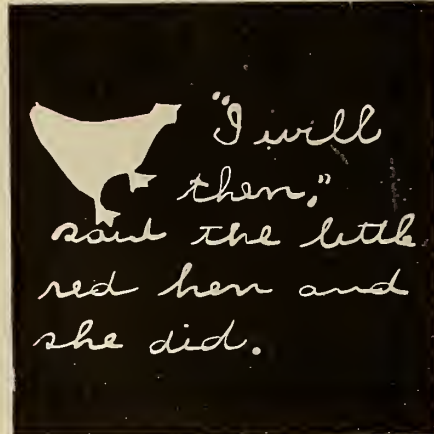


Figure 9

water-colors, the child painted in the red and blue of the blanket wrappings and applied touches of brown to twigs and branches. Our cut, unfortunately, does not reproduce the colors of the original. Figure 4 is unique in that the pupil treated the entire slide to a thin coating of white chalk wash and then used a pin to scratch in the stars. His idea was that on the screen the yellowish light from the lantern would make the stars glow faintly golden against a dark sky.

All three of the slides shown in "The Little Red Hen" set were made on glass surfaced with the gelatin solution. Figure 7 was done entirely with India ink, and Figures 8 and 9 used cutouts made from white paper, supplemented by captions written in black ink. The decorated mats that are obtainable from the slide supply companies were used in every case in mounting the slides to give them a neat, finished appearance.

Maps, charts, outlines, patterns, pen-and-ink sketches—any type of visualization by writing or drawing—can in this way be readily prepared, and when shown by the stereopticon will give an enlarged picture six or eight feet square.

Try your skill in this work. Place the glass, previously coated with the gelatin solution, over a simple picture and trace it. Add color or caption if so desired. Then project it on the wall or screen. Of course any little errors you may make in sketching will loom large on the screen—but also will your good work be magnified.

[In his third article, to appear in the February issue of VISUAL EDUCATION, Mr. Hays will discuss the use and operation of the classroom stereopticon, presenting numerous simple suggestions and helpful ideas drawn from his practical experience in visual teaching.]

The Place of Graphs in Business

ELIZABETH WIGGINTON

Chicago, Illinois

PICTURES—still, moving and stereopticon—are today the accepted agencies of visual education, whether in the classroom or in the larger school of everyday life. There is, however, another device which profitably utilizes the eye in the business of education—a device with possibilities that are as yet only partially sensed and to date scarcely developed outside the field of business. This is the graphic chart, or graph, condensing pages of statistics into simple curves that we read at a glance.

Business has become so complicated that simplified methods of handling the immense amount of data involved have become absolutely imperative. Information and explanations given in statistical form are often confusing. One is inclined to sympathize with the man who declared he "could not see the forest for the trees." The head of a colossal industry cannot take time to digest a quantity of indefinite detail when he requires concrete data. The salesman cannot hold attention nor impress his "prospect" with generalities. The superficial or ignorant outsider makes inquiry of the expert and fails to comprehend the technical explanation he receives; complexity of detail confuses the issues, and the most important items are frequently obscured.

Basis of Comparison Essential

In some cases figures and statistics bring little light to bear on a problem for the reason that they lack a basis of

comparison, without which they mean little or nothing. A mountain, for instance, is high only in proportion to some other mountain or to the sea level. Thus, to think effectively one must have some comparison on which to base his judgments and decisions. Because all values are relative and because previous standards have been upset by world war conditions, new methods of comparison are today imperative. The amount of business a man did a year ago has little relation to what he is doing or should do this year. It is problems of this nature which have forced the graphic chart into broader usage than it has ever known before.

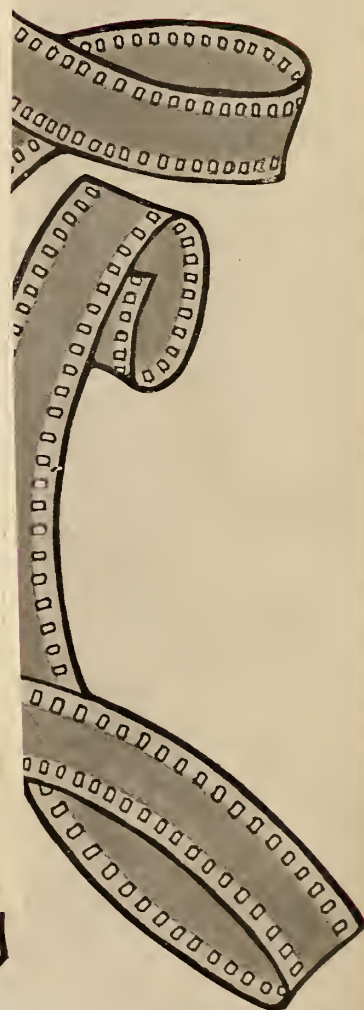
It is, therefore, not surprising that the visualizing of statistics and all kinds of more or less technical information is the demand of the hour in all lines of business. The graph is as acceptable to the alert business executive as to the immigrant in the government's Americanization classes. While, according to the Bible, "the ear trieth words," the eye takes in the whole story at a glance.

A Panorama of Facts

"Whenever we are puzzled by a confused mass of figures, whenever we want to get at the heart of a matter, we are glad to see a chart that gets down to fundamentals and explains our uncertainty," declares Walter Dill Scott, expert in economics and President of Northwestern University. "We all agree that there is something about a

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

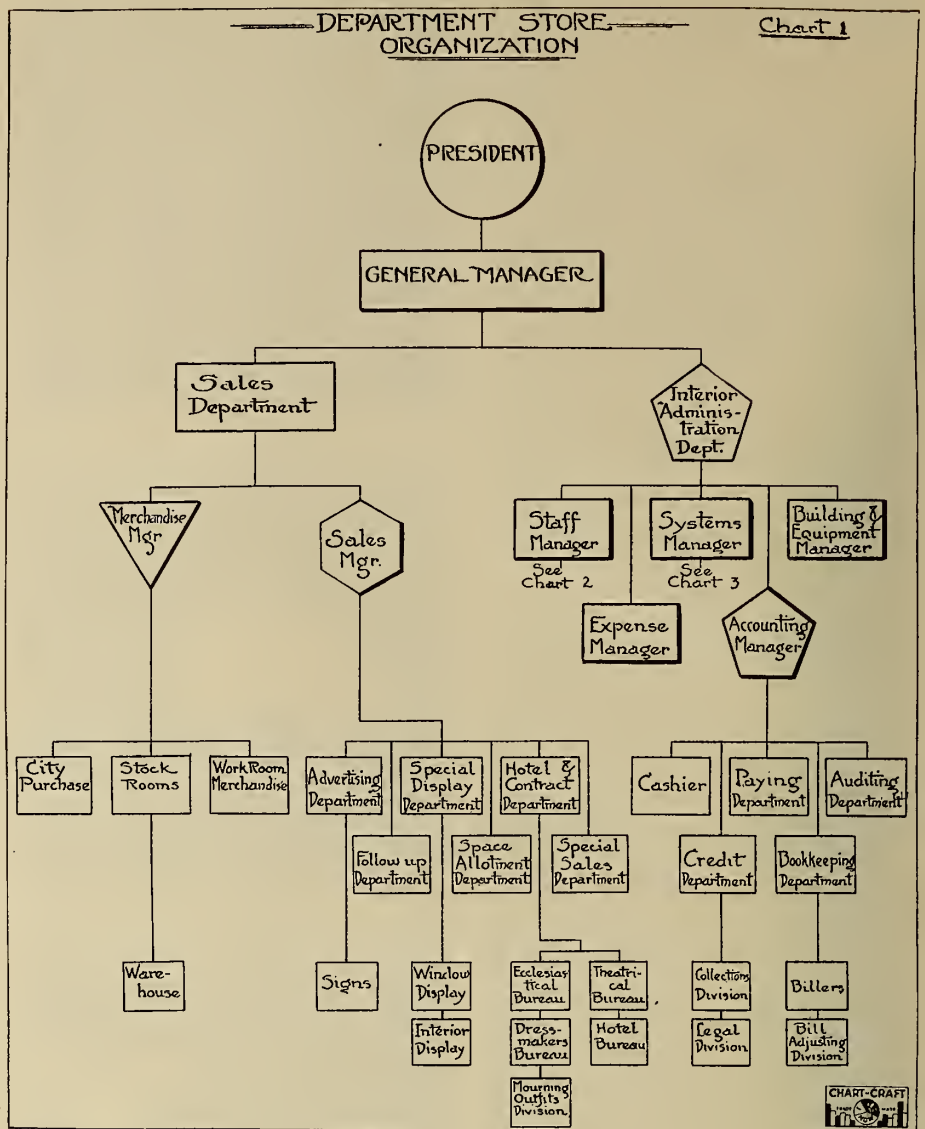


FIGURE 1

chart that gives us a mastery over details. It seems to present a complex situation as a panorama, with each detail in its place and the relations and interrelations orderly and definite."

So widespread is the demand for graphic charts in various departments of business, and so varied are the uses

to which graphs are now put, that the office man who considers himself thoroughly equipped for his work makes a point of getting the data of his reports into picture form. The weak spot which has been eluding the management and absorbing the profits, is frequently mercilessly exposed at short notice by

an effective chart. Research department, statistics, analyses and graphs have become almost as necessary to a big business concern as its advertising and publicity departments.

Organization Charts

One of the most interesting and least technical of these graphic aids is the organization chart which not only shows executives and employees in their relation to one another, but also visualizes their individual functions. Figure 1 illustrates such a chart. Employees who are given an opportunity to study a well worked out chart are helped thereby to grasp their places in the organization. What is more important, the general purpose, ideals and character of an organization are made more real to employees through studying its functions and aims in this concentrated, visualized form.

In many instances a certain amount of inspirational matter accompanies such charts, since it is a well-known fact that one of the defects of a large organization is that the small parts of the machine fail utterly to grasp the scope of the whole and, therefore, do not function in harmony with the ideals of the heads. Especially is this true of large department stores, because they have been presumed to be unwieldy in comparison with the small retail shop where personal

attention can be given to the requirements of each department. By means of proper charting and illuminating explanations to accompany the graphs, these difficulties are to a large extent eliminated; for understanding leads to sympathy and sympathy is the first step toward co-operation.

Store Charts

According to C. S. Richardson, of the Business Charting Institute, there is a growing tendency to employ charts of purpose and ideals, principles and policies. There are also charts plotting the arrangement of a store, copies of

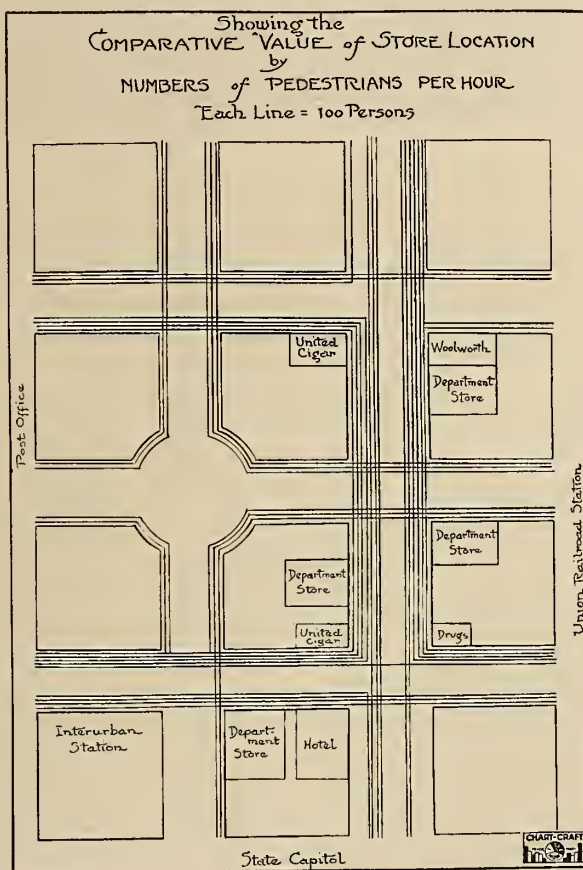


FIGURE 2

TION

100 a Year

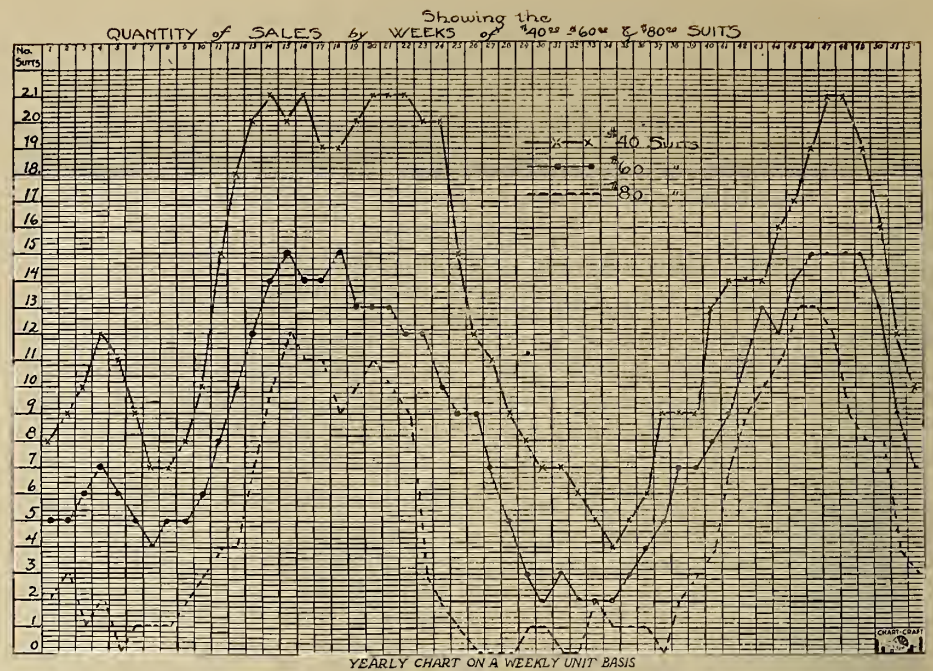


FIGURE 3

which may be furnished to customers as well as employees, enabling patrons to become familiar with the store layout. One of the popular arguments against the large department store is the inaccessibility of its various departments and the ignorance of employees regarding the location of various articles. Thus the arrangement chart is a time-saver and makes a bid for the goodwill of customers.

Visualizing "Good Locality"

Before the up-to-date merchant of today selects the location for his retail store, he studies a chart on which is visualized the pedestrian traffic, even to the actual number of persons on each sidewalk per hour and, if possible, the direction of the traffic. In this connection it will be found interesting to give close study to Figure 2. It is even considered important to take into con-

sideration the reasons why there are such streams of traffic and why they flow as they do, as otherwise conditions might change within a short period and the location thus be rendered unsuitable.

Another point that enters into the graphic analysis of the location is the class of people who make up these trade streams. Chain stores have achieved the greater part of their success through wise choice of locations. The old idea that people will go anywhere to a good store is not the modern idea, it costs too much in resistance. It is cheaper to go where people already are.

Of course, there are many other factors which have to be considered and which may be covered in the charts; such as average rental values, income and wealth of different sections and

(Continued on page 52)

Models As Visual Educators

F. M. JEWELL
Carlinville, Illinois

THE desirability of using models as visual aids in the teaching of zoology has been recognized for many years. It was not until the recent world war, however, that we realized the need of possessing an industry of that character in our own country, for with the coming of the war our source of models, all of which had been imported, was cut off and schools were unable to obtain the model material they required for their classes in zoology.

Having had training in sculptural work in marble and granite, the writer was able to prepare a few biological models for use in his own laboratories. Seeing one of these models in use, the head of one of our large biological supply houses suggested that other zoology teachers would be glad to employ them if they were available. From that chance beginning, after many months of tedious work, the process of making anatomical models was slowly perfected.

How the Models Are Made

The first essential to the making of such a model is a thorough study of the specimen, after which several dissections are made, usually one or more for each of the various systems. After determining the most desirable size for the model—considering the details to be shown and convenience of handling in the laboratory—a block of plaster of Paris is built up, somewhat larger than the model is to be when completed and roughly of the same shape. When this is thoroughly dry it is gradually given

the proper proportions, and by reference to the dissections the details of the different systems are drafted and carved out in their proper relations to each other. The carving is done by means of fine chisels, scalpels, needles and other tools, many of them being fashioned at the time to suit their particular use.

The preparation of the original model of such a specimen as the freshwater mussel *Anodonta*, for example, means several weeks of tedious and painstaking work. In a fairly large specimen like *Anodonta*, dissections and drawings are sufficient; but in other smaller specimens, such as the chick embryo, the models must be reconstructed from serial sections of the specimen and studied under the compound microscope. After the original is completed, either piece molds or flexible gelatin molds of the model are prepared, from which casts like the original can be made as required. When the casts are dried they are carefully smoothed and any imperfections in details are remedied.

The models are treated with shellac to render them more durable, and are then ready for coloring. This work is done by professional artists, enamels and tube oil paints being used. The various systems are designated by different colors; thus, yellow is used for the digestive system, green for the urinogenital system, red for arteries, blue for veins, and so on. Frequently as many as ten or twelve different

ITION

100 a Year



THIS ISSUE: *Playing the Health Game*



HOW THE BIOLOGICAL MODELS ARE MADE

A few of the stages in the process of preparing the models, using the fresh-water mussel as an example. At the left is shown the plaster block from which the original model will be carved; nearby are a few of the tools used in the work. Next are pictured casts of the front and back of the original, the upper one being partially covered with clay preparatory to making a plaster jacket for the gelatin mold. From these two casts, taken from the original model, gelatin molds are made as casts are desired. To make such a mold the clay is removed, the jacket put back in place, and melted gelatin poured into the space around the cast formerly occupied by the clay. In the center of the table is seen such a flexible gelatin mold, showing front and back of the mussel model, opened up. At its right is the cast formed by pouring the composition into this mold. Next to this cast is a completed model, properly colored, and mounted on its pedestal. The model at the right represents the crayfish.

Note the actual animals, such as are used by biology classes, mounted on cards in front of the models, and compare as to size with the models themselves.

shades are used in order to secure better differentiation of parts. The models are finally given a waterproof finish, mounted on stained and polished pedestals, and are ready for use.

In making plaque models the frame is placed upon the mold, so that the material of which the model is made is poured into the mold and frame at the same time, the cast being held firmly in place by means of grooves. In this way the model is neatly and securely framed when removed from the mold.

Correct Use of Models

It must be understood that models are intended to be used as an aid in teaching the anatomy of the specimens to be studied, and that the

work of dissection is to be done as usual in the laboratory. In general, the writer has found it best for the student to make his dissections and learn for himself everything that he possibly can before the model is introduced. Then, if he has difficulty in finding the structures for which he is looking, or in visualizing the relations of the different parts as described in the laboratory directions, the model may be used to help him over the difficulty.

Very often a few words of explanation on the part of the teacher, with the aid of the model, or an examination of the model alone, will save a great deal of valuable time by clearing up doubtful points in the student's mind. In-

stead of becoming discouraged because of his failure to understand, the student will then return to his specimen and readily identify the parts in question.

Let us take the mussel as an example of the difficulties usually encountered. When one of the valves of the shell is removed, the soft parts thus exposed present a rather discouraging aspect to the elementary student. The systems that can be identified with very little or no dissecting are found and drawn as seen. Then dissections for each system—circulatory, excretory, nervous and digestive—are undertaken, a separate drawing of each being generally made.

By the time the student has completed this work there is very little if anything left of his specimen, and the parts that do remain are badly disarranged and torn. Often he has failed to find certain parts, perhaps due to

the fact that in dissecting for one system he has damaged another. If one or two students in the class do make good dissections of the nervous system with its ganglia and connectives, the teacher gladly uses their dissections for demonstrating the structures to the rest of the class. Another student may make a satisfactory dissection tracing the course of the digestive tract or the locations of the nephridia and their apertures; but it is a rare student who can expose all of the parts in their proper relations to one another.

Importance of Visualizing

What, therefore, has the student accomplished when he has finished his work? He has a series of drawings, more than likely not on the same scale, showing the different systems; but the average student, although he may understand each system as a separate part, finds it impossible to reconstruct in his

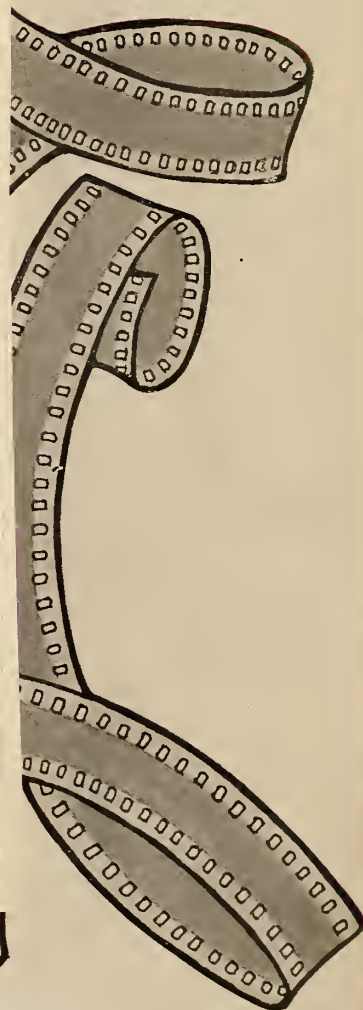


USE OF MODELS AS A MEANS OF REVIEW

A group of students at Blackburn College using models as review material. From left to right the three large models are Amphioxus, the fresh-water mussel and the crayfish. The small models at the right are a set showing the development of the frog. Amphioxus is an animal about an inch and three-quarters long, and an idea of the size of the model can be formed by comparison with familiar objects on the table. Compare also the size of the model of the mussel with the shell of a large specimen lying just at the right of the model.

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

mind a visual image of all the different systems in their proper relations. If there were no correlation or interdependence of parts this would not be so serious, but since an understanding of the individual as a whole depends upon a proper conception of the different systems in their relation to one another, it is important that the student should *visualize* the knowledge he has acquired through dissections and drawings.

It is at this point that the model proves most valuable. With its three dimensions it represents an ideal dissection; and in constructing it, as already pointed out, as many dissections as desirable can be made for any one system, whereas the student usually has but one specimen at his disposal for working out the entire anatomy in a limited amount of time. Thus, the model represents an enlarged composite of several dissections, so made as to show the most important parts to the best advantage. Where the actual specimen used by the student is seldom over four or five inches long, the model is over thirteen inches in length and the parts are shown in contrasting colors.

By studying the model after completing his dissections the student is immediately able to visualize his knowledge, so that instead of having merely a series of more or less complete memory images of disconnected systems, he is able to combine them into one visual image of a functioning whole. In forming such a complete visual image the student learns to associate the systems in reference to one another—an association of ideas that is a most valuable help to *retaining* the knowledge that is acquired. Points that are vague are

easily cleared up by reference to the model, and when the work is completed the student feels that he has really accomplished something.

Any device that will enable the student to form conceptions more quickly, more accurately, and in a way that will enable him to retain them longer is worthy of the most careful consideration. That is where the value of the visual idea becomes most apparent. Not only are visual teaching aids productive of clearer thinking on the part of the student, but they permit the teacher to handle his subject more efficiently and at the same time save much time and energy formerly expended in making long and elaborate explanations.

Models as Review Material

After the laboratory work, lectures and readings in the text are completed, the model affords a very convenient means of review. Some parts may have been studied rather hurriedly in the laboratory and later discussed in lectures. The model will fill in the gaps more clearly than is possible in any other way.

Moreover, as new specimens are taken up, a series of models of the different types proves most useful for comparison purposes. As one instructor expresses it: "Models are valuable to students not only in making a good dissection for themselves later, but also in reviewing and comparing these structures with other forms. With a series of such models comparative anatomy should be much easier to understand—and anatomy that is not comparative is not anatomy in the full sense of the term."

(Continued on page 50)



Photography **T**HE camera finds an ardent advocate in as an Art Robert Allerton Parker, who writes in *ARTS AND DECORATION* upon "The Art of the Camera." The great possibilities of the camera as a medium of artistic expression are being made evident by the achievements of two artists, Charles Sheeler and Paul Strand, men of considerable reputation in their field of attainment.

These two men recently exhibited in the Rialto, New York City, a short series of motion pictures which presented everyday sights of the metropolis so beautifully done that they seemed more like etchings than like photographs. Critics found the films not only artistically satisfying but thought-provoking. Their success helps to prove that in the hands of craftsmen the camera can become an instrument of great art. "At last the artist can register those strange accidental moments when light, lines, form and movement seem by chance to combine into an unearthly divine beauty, transmuting everyday objects into plastic poetry."

"In entering the field of motion pictures, Sheeler and Strand sought to apply the technical knowledge gained from their experiments and achievements in 'still' photography to the more complex problem of the motion picture—to register through conscious selection and space

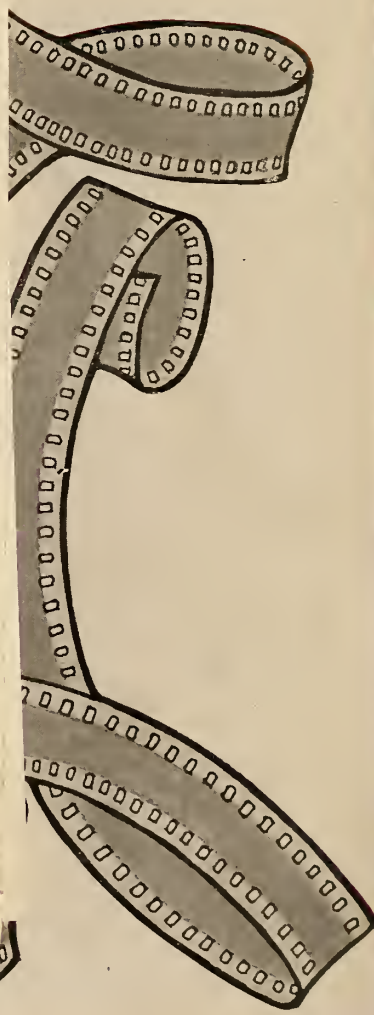
filling those elements which are expressive of the spirit of New York, of its power and beauty and movement'."

"The camera," says Mr. Parker, "cannot be dismissed as a mere machine. To use it as the instrument of art is to acquire the key to a vast and unexplored treasure-house of expression." No one questions the legitimacy of the musical instrument as a medium of expression. Why then should one remain obstinately unconvinced of the effectiveness of the camera as an art?

The author feels that photography should become an essential in any adequate art education, and makes two suggestions for pioneering experiments which are of unusual interest.

There might be a little "movie" movement paralleling the so-called "little theater" movement which has had a decidedly beneficial influence upon the native American drama. The movement would take the form of a small producing group of directors, scenarists, actors and photographers. The film could be released through exhibitors or through special theaters. For many reasons, however, such as lack of funds, difficulty in organization, etc., this project is not at present feasible.

The second method of handling the matter is concerned with the organization by established producers of a research or experimental department in which true



artists of the camera could work encouraged and protected. There are companies such as the General Electric, the Bell Telephone Company, and the Cheney Brothers' Company which have already established general departments for research and are doing an important work. It has been said that the research department of the General Electric Company is doing more for general science than are all the universities of England.

* * *

**Our Films
"Too
Refined"**

IN the January number of *PICTURE-PLAY*, in the department edited by

The Observer, appears an editorial which bids fair to realize its very evident purpose of provoking a spirited controversy. Like many another article anent the motion picture, it is a bitter and heart-wringing diatribe against conditions existent in the world of the cinema. And beyond doubt there are many who will be both shocked and surprised to discover how deplorable matters have become. To state the great difficulty in the author's own words, "the motion picture is getting wishy-washy, literary, educational, inspiring—something you 'ought' to see."

In the course of the editorial it is soon made more than apparent that those individuals who have been agitating for the artistic uplift of the screen are achieving their designs sooner than even they had reason to expect. But not unnoticed and unrebuked will they be allowed to plan and to achieve such ends. The unsuspecting public is not to be exploited because of the fine literary discriminations of a few unfeeling high-brows. Friend Observer, heeding the dictates of a conscience "that won't let him be a hypocrite," declines to permit any unpleasant resultant complications to interfere with his exposure "of the too darned nice and refined" condition of the motion picture. Never, he declares in effect, shall things come to such a pass and he remain silent.

Nor will he rest content with merely

drawing the attention of the public to the sad situation. His desire to serve leads him to point out what must be done to remedy matters. "More pep," he demands, "more detective stories, more red-hot love stories, more thrills, spine-tingling thrills, thrills that make you grab your girl's arm and gasp—action, drama, punch, galloping horses, mortgages, fires, sudden deaths, suspense, suspense and more suspense! . . . We want the gosh-darnedest drama that anybody can give us, well done. We're not crying for crudity, but we are yelling for something to happen in the picture shows."

It is The Observer's unshakable belief that the motion-picture producers are trying too hard to make pictures for the folks that seldom come to see the shows and that they are forgetting the regular "fans." If the film companies would stop making dramas like "Sentimental Tommy"—dramas that are appreciated only by the occasional intellectual—and do more pictures such as "The Sign on the Door," with its Norma Talmadge and its melodrama which pleases the American people, the present sad state of affairs would be vastly ameliorated.

The stinging regret which assails the reader is that The Observer confines himself to the cause of the motion picture. One craves to have him extend his efforts to other fields of artistic development. A few paragraphs from his elastic pen might make evident also the supreme absurdity of grand opera and concert music, and thus help to assure to the people their jazz, too often, alas, the subject of rude and uncharitable comment. His advice might likewise accomplish much in the realm of art. Influenced by his penetrating and encouraging remarks, people might in time be moved to divorce the misty Corot or Inness from their walls and throne in their stead the vastly stimulating studies of Harrison Fisher and other members of the front-cover fraternity.

The day is rich in opportunity for just this type of valiant reformation.

Community Movies How can a small town eliminate the chance of having poor movies come in and take possession of its entertainment field? By providing good, self-supporting motion-picture shows which prove attractive to young and old. That is the answer to the question provided by Helen M. Scarth in an article on "Community Movies," appearing in *THE OUTLOOK* of December 6.

In this article is related the venture of a small New England town, Farmington, Connecticut, which undertook to establish good movies.

First, a small nucleus of people met together, talked over the matter, and then called a general meeting for all members of the community interested in having local movies. At this meeting a committee was appointed which later decided that the best way to handle the matter was to form a regular syndicate to own and control the moving-picture enterprise. A fund of \$1,500 was raised, not more than \$50.00 nor less than \$10.00 being accepted from any one individual. The understanding was that if the venture succeeded the subscription would be returned.

The Town Hall was rented, equipment bought and installed, and performances began at popular prices. A committee of women was appointed to select and suggest films. Because the programs were consistently good, people from outlying districts and even from the larger adjacent towns patronized these "community movies."

After the original contributions are fully paid up, all profits are to be put into better productions, better music and better equipment.

Why do not more small towns follow the successful example of Farmington? Such community movies on a self-supporting basis are an asset to a town, for they provide clean, well-selected entertainment for everybody.

An Active Better Films Committee The Better Films Committee of the Chicago Woman's Aid is doing a unique and valuable work in disseminating information as to what are the best films produced, according to an account of its activities by Mrs. Fred Michael in *SOCIAL PROGRESS*. The purpose of this committee is not to criticise, but simply to endorse pictures which can be shown to the small child, the adolescent and the family group.

It was found that few mothers realize the vicious effect of cheap pictures upon the impressionable minds of their children. In order to arouse their dormant sense of responsibility, the Better Films Committee put the following questions to them:

Do you know where your child is receiving his so-called "legitimate recreation"?

Do you realize what influence the average vicious motion-picture has upon the mind of your adolescent boy or girl?

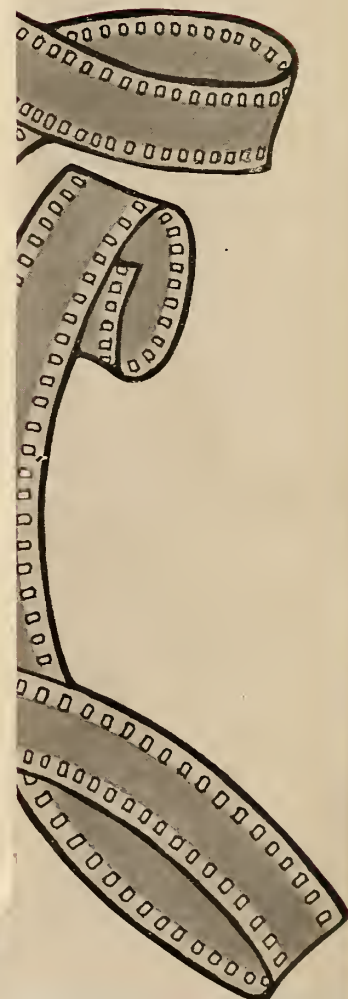
Do you wish to see your child a graduate in the school of crime through the medium of that kind of picture?

Do you realize that there is an intemperate use of the motion-picture?

Although the Committee has been operating only a comparatively short time, it has established cordial relations with the big film exchanges in Chicago and thus made it possible to go to the exchanges to do the reviewing. Their favorable verdict upon a picture has come to be a matter of some moment to the managers.

A committee of three women does the reviewing, trying always to see the picture with the eyes of the child. It acts upon the principle that a picture of adventure and fighting, be it clean and fair, is not half so harmful as a picture of indiscriminate love-making and its consequences; that pictures of normal, wholesome and moderate love-making should be endorsed; and that films belittling the sanctity of marriage, whether in comedy or drama, should be omitted from our printed lists of endorsements.

The Better Films Committee also sends



out speakers on request and is always ready to advise on the selection and managing of special programs for children's performances. It is most emphatic in its support of the theater-owner who shows the right kind of pictures.

The list of better films which it publishes periodically and sends without charge upon request is of incalculable value to schools and other institutions which desire wholesome pictures. That its value is widely recognized is proved by the fact that calls for it are coming from all parts of the world.

* * *

No Friend of the Films

It is probable that the motion picture as an institution has never received a more vigorous pommeling than that delivered by Burton Rascoe writing in *THE BOOKMAN* for November on "The Motion Picture an Industry, Not an Art." If there is anything damning which he has left unsaid about the cinema, we haven't the slightest idea as to what it might be. As a matter of fact, Mr. Rascoe has attacked the motion picture so bitterly that the very violence of his statements—by the strange law of contrariness—may be prejudicial to his cause.

The argument is begun with a general statement regarding the mental condition of the pitiable deficients who frequent the movies. According to estimates made by the National Research Council, the intelligence of the average American male adult is that of a normal fourteen-year-old. The mental level of women is so low that it isn't worth even mentioning. Now, there are a few motion pictures—such as *The Four Horsemen of the Apocalypse*, *The Birth of a Nation* and *Way Down East*—so constructed that they appeal to the intellectual range of a child of fourteen. The rest of the movies, however, could be endured regularly only by persons whose psychopathic condition is a subject for grave concern.

Striking an average between the intelligence which comprehends *The Four Horsemen* and that which dotes upon

Heedless Moths, for instance, "one emerges with a determinant upon which hinges the whole problem, not only of the movies, but of the ideals, aspirations, social life and educational progress of the race. That determinant is the coercive force and weight of the economic patronage of the average man who, it has been seen, possesses in this country a fourteen-year-old intelligence in a state of arrested development, with its sinister burden of prejudices, taboos, neuroses and superstitions." Consequently, we can expect no racial progress with such men as the arbiters of our destinies in custom, law, education, manners and recreation.

The narrow and material predilections of this average American citizen are not only recognized—they are debauched and exploited by magazines and newspapers as well as by the cinema. Popular current literature is obviously designed for people for whom reading is an effort to be exerted as little as possible. And the less people read, the more quickly the movie will achieve their downfall.

The glaring headlines and signboards of today afford the retina of the modern man scant repose. The results of this strain are a fatigue which makes reading and study impossible, and an unresponsiveness to any visual impression which is not violent and sensational and badly organized. This is, of course, the type of visual impression that the motion picture provides, mirroring in its reels "the aspirations of a peculiarly unimaginative, repressed and mentally starved people, a people who have in the overwhelming main been taught to value only a devitalizing and despiritualizing material success, arrived at by a curious duality of ethical teaching and practice."

The movie industry, which is one of the five most important industries in the United States, "has not one guiding personality who has revealed more than a glimmer of aesthetic taste. . . . The movie is on the intellectual level of the peep-show, the penny arcade, the

(Continued on page 48)



Vocational Department

Notes and News Items

WRITING in the *VIRGINIA JOURNAL OF EDUCATION*, Rachel Elizabeth Gregg declares that it is "because they lack objectives" that many children leave high school, rather than because they have failed or are driven by economic necessity. She advises, therefore, that an introductory course in vocational guidance be given in either the eighth or the ninth grade, affording a survey of the main occupations and professions.

Vocational motion pictures, bulletin boards and vocational exhibits should all be used, as well as courses, lectures and conferences. A course in vocational civics, she believes, might well constitute part of the work in civics. It is important also that parents be included in the plan of vocational enlightenment, both to secure their co-operation and to broaden their point of view about many vocations.

* * *

The annual meeting of the National Vocational Guidance Association will be held in Chicago February 23-25, immediately preceding the annual meeting of the Department of Superintendence of the N. E. A. The headquarters of the convention will be the Hotel La Salle.

* * *

"Vocational guidance is not a scheme for finding jobs or of forcing vocational decisions on children. It is not to hurry children into vocations, but to delay them and train and educate them for their vocations. It is a means of teaching children how to distinguish between a job and a vocation. Vocational guidance is organized common-sense to help each

individual make the most of his abilities and opportunities."

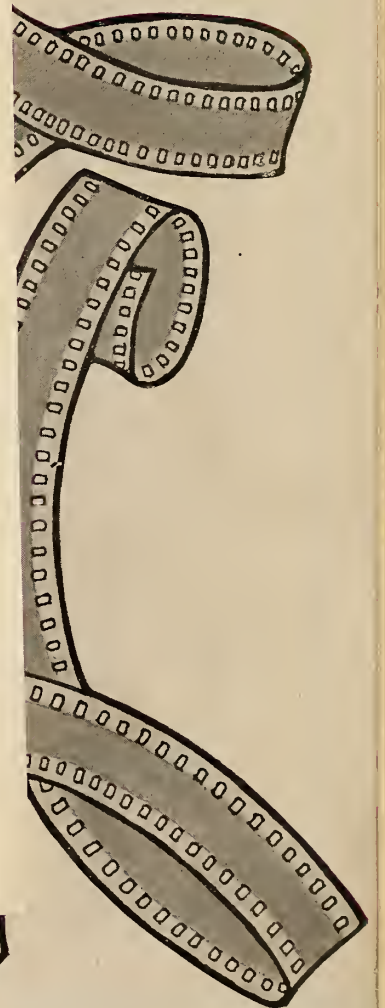
* * *

When we turn from the narrower interpretation of vocational guidance as a mere process of selection of an occupation, to its broader educational meaning, new and more important possibilities of making a contribution toward the prevention of unemployment appear. In its broader meaning, the scope of vocational guidance includes a continuous scientific study of the individual before his wage-earning life begins, a study of all the available opportunities for training for occupations, and a study of the occupational world. It is with this third phase of the topic that we are most concerned—not merely facts about the occupational world, but a point of view about it, is what a good program of vocational guidance undertakes to develop. . . .

So long as the aim of securing private profit remains the sole dominant one in industrial life, there is little hope of preventing or controlling the evils of unemployment. Fortunately there are signs of a change. . . . The point of view that only as the employer makes a real contribution to the welfare of his workers and of society, has he any right to private profits, is gaining ground. Indeed, in a few instances, the most advanced thinkers among employers are taking toward industry the attitude of education—the attitude that each human being has a right to expect to be placed in such an environment that he has an opportunity to develop his best powers. Thus industry becomes an extension of the educational process.—*Helen T. Woolley, President, National Vocational Guidance Association.*

TION

100 a Year



THIS ISSUE: *Playing the Health Game*

The Picture Hour

The following informal picture-talk is intended to suggest to the teacher various ways in which she can make pictures teach for her and with her. There is no doubt but that a picture with a vital theme can, if properly interpreted, teach as much as, or more than, many pages of textbook information. There are scores of good pictures available for such a purpose that are equal in instructional value to the painting selected as this month's subject.



PURITANS GOING TO CHURCH

THIS picture was painted by a famous artist named George Henry Boughton, who was very fond of picturing scenes in early American history. Let each one in the class try to discover some fact about his life, so that all of the facts can be put together to make his biography.

If you really "see" this picture, you can learn a great deal about the Puritans and about the way in which they lived. Suppose you were told that this painting pictures a time when King Philip, the relentless Indian chief, was waging a bitter war against the settlers. What would you do to find out just when that was? Encyclopedias and history books are very useful things, you know.

Compare the position of the armed men with that of the women and children and old men. Could one of these old men possibly be the minister? All the men are looking intently in every direction, but one has apparently heard a suspicious sound, for he is holding out his hand for

silence. What would they do if an Indian arrow should suddenly come whizzing past them? Do Indians fight fairly or do they enjoy taking their victims at a disadvantage?

Do you imagine that the little girl holding her mother's hand was really glad to go to church? Do you think she would rather have stayed at home near the big, hot fireplace? Perhaps she is fancying that there is an Indian's hideous face peering out at her from behind the trees. Her mother has a very determined and brave expression. You may be sure she is praying that the Indians are all far away and that her little girl will live to tell her own little daughters how she went to church during the Indian war. You might find it fun to write a short story about this subject. One woman is carrying a wee bit of a baby. Babies are so apt to cry in church and to interrupt the minister's sermon that you would think

(Continued on page 56)

"How We Secured Our School Projector"

IF any valuable adjunct to formal education ever found educators, pupils and parents all thoroughly agreed in its favor, it is the motion picture machine. No better proof of the value and popularity of the educational motion picture could be brought forward than evidence of the dauntless and infinite resourcefulness with which schools, clubs, classes and individual pupils have worked to procure the needed equipment. No combination of business depression, war taxation or general "hard times" appears to be a serious obstacle to prompt and resultful action.

The following list of schools which have in one way or another worked out the problem of procuring a projection machine and other equipment, compiled from items which came readily to hand, serves to illustrate the trite old saying, "Where there's a will there's a way."

Alexandria, Minnesota

The Alexandria High School was presented with a projector by the classes of 1919, 1920 and 1921. Money for additional equipment and incidental expenses was later raised by renting the machine to outside organizations for the purpose of giving "movie" programs. Educational films or features of the purely entertainment type were secured for these public shows.

Amboy, Illinois

The Township High School has purchased, through the efforts of the pupils, a motion picture machine costing \$350. A campaign for subscriptions to the "Saturday Evening Post," "Country Gentleman," and the "Ladies' Home Journal" netted \$146. Enough additional money was raised to make an initial payment of \$175 on a machine combining slide and film projection features. A similar campaign is again in progress, and in addition to the above-named publications the "Amboy News" is on the list for subscriptions, each subscription yielding a fifty-cent profit. The funds thus raised will be applied on the balance due on the projector.

Anthony, Kansas

Boys and girls raised the necessary

funds for the purchase of a school projector by soliciting subscriptions and renewals for "The Country Gentleman."

Atlanta, Georgia

One school gave an old-fashioned lawn party to raise funds for their machine. Another school has earned \$1,500 in a single year by its public "movie shows."

Augusta, Georgia

The Parent-Teacher Association gives an entertaining motion-picture program every Friday evening at a nominal cost, and uses the funds thus raised to pay the expenses of the educational pictures which are shown weekly in the schools.

Aurora, Nebraska

It has been the custom for graduating classes to present a gift to the school, and the class of 1921 lastingly distinguished itself by the purchase of a motion-picture projector for the use of those who follow them in the Aurora schools.

Baltimore, Maryland

Teachers of some of the schools accumulated the cost of school projectors from the proceeds of high-class feature shows given under their management.

Boyne City, Michigan

The teachers managed a series of public motion-picture shows and used the admission fees to secure a projection machine for the school.



Burlington, Iowa

The amount cleared by a successful Redpath Lyceum course gave R. H. Bracewell, principal of the high school, a \$300 start toward the purchase of the machine for the high school auditorium.

Champaign, Illinois

About \$600 was borrowed for the purchase and installation of a projector, a Westinghouse rectifier with Medusa gold fibre screen, and a steel booth. In two years the outfit was paid for, together with interest on the borrowed money. During the past year a reserve fund of \$170 has been accumulated. While paying for the equipment many high-class shows were given to the public at a 20-cent admission fee, and occasional educational programs were given for the benefit of children at two cents admission.

Chattanooga, Tennessee

The Parent-Teacher Association interested in the high school has been instrumental in raising funds for their motion-picture machine.

Creston, Washington

High-class movie shows were given to the public by the school teachers and the proceeds invested in a school projector.

Decatur, Illinois

The money supplied for the \$250 school projector came from various funds. The largest of these was derived from the sale of school books left with the book exchange for this purpose. Commissions from subscriptions to an agricultural magazine secured by students in agriculture supplied another good-sized donation, and a "breakage fund," money paid by the science students as penalties, also augmented the projector fund.

Deerford, Louisiana

The Deerford High School had to undertake the heavy expense of purchasing a Delco light plant as well as a projection machine. A beginning was made with a "box supper," which netted \$100. The principal of the high school, J. G. Canterbury, used this \$100 as purchase payment on the entire bill, and two patrons of the school signed notes with him for the balance due, which was made in ten equal

payments. Picture shows were then arranged for Saturday evenings, programs for which included such features as "A Tale of Two Cities," "Les Miserables," "Treasure Island," "Everywoman," and "Dr. Jekyll and Mr. Hyde." Either a comedy, a news reel or a travelog completed the program. Lack of space in which to accommodate the crowds who came, and the high prices asked for first-class films, made the profits small. But after two months' experience the same program was given on regular nights at three neighboring high schools at their request, these schools receiving fifteen per cent of the proceeds. The fact that the films were rented at school rates and for four days instead of one lessened the daily cost, while the profits from four shows greatly increased the net income. Each note was paid before it became due and sometimes two or three notes were taken up at a time. Before the end of the year the high school was the proud possessor of its entire movie equipment.

De Soto, Kansas

The Rural High School in this little town of 300 population owns its motion-picture machine and is paying for its equipment and defraying current operating expenses by giving public showings. Admissions are kept low, and the school has made itself a public benefactor by providing high-class entertainment.

Galesburg, Illinois

The Y. M. C. A. is earning its motion-picture machine and stereopticon in a novel manner. Large diagrams of a motion-picture machine were drawn on a banner and hung in the lobbies of the boys' and men's divisions. The whole diagram is blocked off into sections, the larger ones representing \$10 contributions and the smaller ones ranging down to 25 cents. Across the top of the banner a sign reads, "Our work demands a motion-picture machine and stereopticon." Four hundred and fifty-nine contributions are by this means in the process of collection, the object being to interest many people without overtaxing any.

(Continued on page 54)



The Films in Review

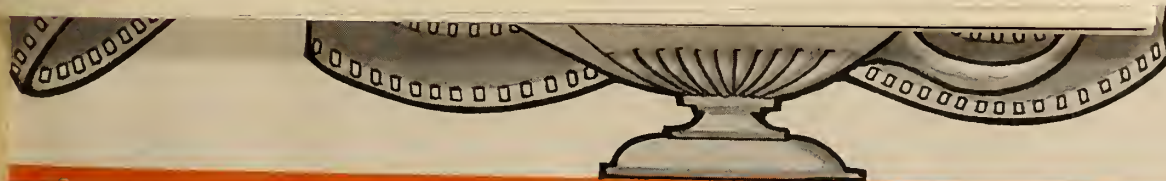
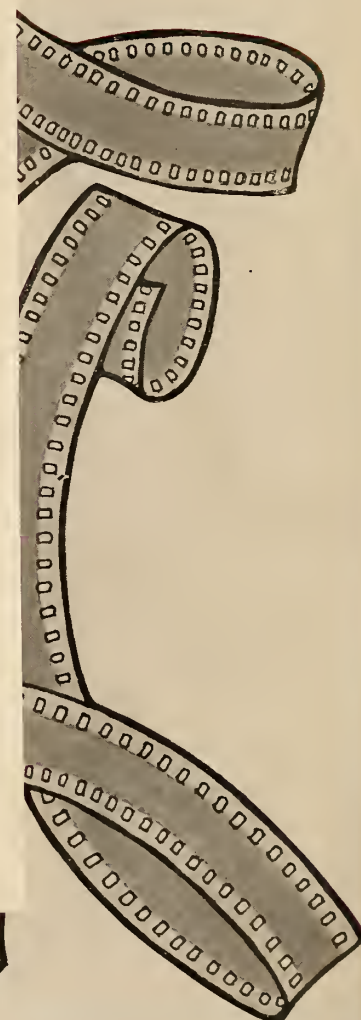
A CONNECTICUT YANKEE AT THE COURT OF KING ARTHUR

IF the famous satire, "A Connecticut Yankee at the Court of King Arthur," is not now one of the most familiar of Mark Twain's productions, there is little doubt but that it will be when the interesting visualization of the story recently made by the Fox Film Company has gone the round of the theaters. A preface to this picture states that the executors of Mark Twain's estate reserved the right to review the film before it was released; that their verdict was that were Mark Twain alive today, he would be delighted with the cinematic achievement. And he probably would be satisfied, for the photodrama is genuinely humorous and fascinating.

One matter of chief interest in the metamorphosis of a classic into a photodrama is the consideration with which a director has treated the original content. In this case, many events have been interpolated while others have been distorted and amplified; but in spite of such changes, the true spirit of Mark Twain may be felt bubbling through all the footage. And to catch a certain unique individuality of treatment and thought and transfer it successfully to the screen is, of course, the difficult but essential thing to do. So far as the actual facts are concerned, those conversant with the book will find in the picture sufficient fidelity to the original narrative to please them.

There is one phase of this picturization which probably will not appeal to many for the sole reason that it will have been overlooked in the general interest—and that is its historical aspect. The story itself is a humorous study in contrasts between the romanticism of chivalry and the practical progressiveness of the nineteenth century, as demonstrated in the personality and activities of a Connecticut Yankee suddenly brought face to face with the mysticism and superstition of the year 528 A. D. It is unimportant that there are anachronisms and historical inaccuracies. The fact remains that a certain picturesque and comparatively obscure period of English history has been visualized. The knight in his heavy trappings of war being ignominiously hoisted with rope and pulley to a firm seat upon his charger's back, may inspire laughter. The spectator will, nevertheless, gain a very clear conception of the nature of the equipment of a medieval warrior. The tournament may be turned into a merry burlesque, yet there is a more or less accurate presentation—and a very realistic one at that—of those good days when knights tilted and unhorsed each other for an amorous glance from their ladies fair. Much more of historical value is unconsciously presented in this picture.

There is probably no other cycle of stories and legends which has been so fruitful a source of inspiration to poets, musicians and artists as the Arthurian cycle. The film makes it possible for



King Arthur, his knights, Morgan le Fay, la belle dame sans merci, Merlin, the hoar enchanter, squires, pages and peasants to sweep from the past, across the range of vision, and back again into the all-embracing clasp of days that are gone. Though we may be led to smile at their foibles and early medieval narrowness and ignorance, we find that in their moments of sincere dignity there is no mirth provoked.

There were times when Mark Twain was beautifully serious in the midst of his fun. These moments of gentle meditation and philosophic pondering that creep into his works are reflected in the film. The average picturegoer may not realize, so effervescing is the gay fun of the picture, that there is a very earnest though quiet argument made for the brotherhood of man. It is really a sincere statement of the ideal of social and political equality that is still working itself out after centuries of bloodshed and oppression. When King Arthur doffs his kingly vesture and

goes in search of reality clad as a peasant, you have an event of significance.

Much of the humor is, of course, due to the incongruous situations, but the slangy, breezy titles are also a source of great amusement. When our Yankee refers to the knight who brought him to Camelot at the point of his spear as an "oilcan" the optience is infinitely diverted. The wit is sometimes a trifle forced but never fails to appeal, and while the diction reeks of the very latest unclassical parlance, we know Mark Twain would not object, so really effective does its use become.

The characterizations are in every case well done. Harry Myers, who is the Yankee, carries off his dramatic duties with an endearing boyishness and verve. He does not caricature the rôle, but he does not allow it to lie heavy upon his broad shoulders. Rosemary Theby, who interprets the part of the murderous queen, Morgan le Fay, is a statuesque figure and very convincing in her somewhat ungrateful rôle. The pre-

sentation of Merlin is invested with the touch of tragedy that comes with age discredited and dishonored.

The pictorial effects are pleasing. The many-towered castle of Camelot in the hollow of the hills, with the winding road leading to its portcullis, is dignified and impressive. Scenes caught along the roads and in dusky castle corners are most commendable in their artistry and atmosphere.

One may well wish for more pictures of this type—pictures that exorcise dull care, leaving the heart light and merry, yet are not compounded of mere cinematic froth and foam, but have content of real value.

Released by Fox Film Company.



THE CONNECTICUT YANKEE APPEARS TO BE RATHER "UP IN THE AIR" ABOUT THIS MATTER

THE CREATION—CAIN AND ABEL—
THE DELUGE

IF THE producers of religious films follow the standard set by the Sacred Films Corporation in the first few of its one-reel releases, there can be no complaint by either clergymen or laymen as to the quality of films obtainable for church use. Seldom is one so fortunate as to see pictures of such high artistic perfection.

Many are the difficulties confronting the producer of Biblical photodramas. If he interprets and visualizes his facts to please the orthodox church member, he is sometimes obliged to forego dramatic effect and artistic rendition; if he strives for effect, he is often able to achieve it only at the expense of accuracy. Usually he is wrecked either upon the Charybdis of orthodoxy or else upon the Scylla of too free and modern interpretation. The three reels which are here reviewed are remarkable for the skill with which they combine Biblical accuracy with dignified dramatic attainment.

The opening reel of the series, entitled *CREATION*, deals with the first narrative of the Old Testament, the beginning of all life. What would at first thought seem an impossible performance, the presentation of so stupendous a matter as that of the creation, is dealt with so easily and yet so effectively that one marvels at the wisdom of the producers. Beautiful views of moonlit and sunlit country are used to indicate the origin of the heavenly bodies, and the charm and simplicity of the scenes impress one with the wonder of it all far more than would have been possible with elaborate settings. Fascinating glimpses of flying, creeping and swimming things and of cattle and sheep illustrate the creation of the animal world in the sequence named in Genesis. And finally comes the fashioning of man in God's own likeness, with dominion over

all things. It is easy to imagine difficulties in the presenting of Adam and Eve, his wife, in their pristine state of happy innocence. The use of the uncovered body is here so beautifully and so delicately handled, however, that the most carping and puritanical mind could find nothing suggestive to criticise.

The episode of the temptation is interestingly presented, with a most real and active serpent which seems to be the very incarnation of evil. No attempt is made



WHILE THE ARK RODE THE FLOODS

to visualize the deity—an instance of rare good judgment, for any such effort, unless perfectly done, borders on sacrilege no matter how sincere the purpose. When God rebukes Adam and the unhappy Eve for their sin, his presence comes as a clear, illuminating light from which they cannot escape.

The second reel is concerned with the second narrative in the Bible, that of *CAIN AND ABEL*. Here is the drama of a restless and violent spirit falling into jealousy and then into murderous impulse, which culminates in the first death by violence. There is a fine symbolism in the attitude of the two brothers and in the wavering smoke from the sacrifice that from the one altar ascended softly to the heavens and from the other trailed in fantastic and uncertain streaks along the ground. The dark, twitching face of the rejected Cain expresses the spirit of the tragedy. And here again there was no escape from the judgment of an offended God.

ATION
s • 100 a Year



THIS ISSUE: *Playing the Health Game*

The fourth reel of *THE DELUGE* is impressive throughout. It is difficult, even in the most vivid imagination, to visualize a world cataclysm, but the director of the picture understood his business, for the increasing fury of the flood is so realistic and convincing that one can almost feel the chill of its merciless waves. The whole story, from the standpoint of those who were destroyed, is told in the motif of the Scoffer. The sneer with which he watched the entry into the Ark is changed gradually to an expression of unwilling concern, realization and horror as the torrents increase.

The artistic effects of these films deserve great praise. They are unusual. The photography is excellent and the natural settings have been selected with a fine, discriminating eye, which has seen in the moods of nature opportunity to reflect and to suggest the human mood. The silhouette is frequently employed, and the convergence of skies and earth is often made as dramatic as is the figure whose outline breaks their union. The subtitles also bear evidence of the general artistic conception. Their art work is uniformly significant and pleasing.

Each reel is introduced by a brief expository statement appertaining to the content. The note to *THE DELUGE*, for instance, conveys the information that there are in many ancient records reference to a prehistoric world flood. This fact is not cited with any intention to discredit the Biblical account but merely as additional proof of its reliability. It is interesting to be told that the Hebrew and Aramaic in which the Old Testament is written are full of picture-thoughts. Certainly the events unfolded in the pages of these old books supply as inspirational dramatic material as one could wish.

The treatment of the subject matter is at all times non-sectarian, tolerant, and calculated to offend no doctrine. Although the narrative of each reel is important, it is the spiritual interpretation of the facts that continually impresses one. It is this fine quality of idealization

which lifts these pictures out of the ordinary and classifies them with the unusual.

Produced by Sacred Films Corporation.

THE LITTLE MINISTER

THOSE who declare that art is unknown to the cinema and that classics too often offer up their best to its lure only to be mutilated and outraged, will find in the recent film dramatization of "The Little Minister" good proof of the soundness of their contention.

This novel of Barrie's is universally beloved. Its appeal and charm have never failed to touch the hearts of those familiar with its chapters. Why it should be thought necessary to change the facts in the story so substantially as has been done in this picture is inconceivable. If the change was made to appeal to a poorly estimated popular taste, the mark has been overshot, for the film would have possessed far more dramatic elements had it followed the original.

Those who have never been so fortunate as to read the book will doubtless enjoy the picture, for it is no less well done than the ordinary run of photoplays. Those who are familiar with the plot, however, and so can realize to what sad extent the unwarranted meddling has been carried, will feel that there has been a desecration of a very fine thing.

Lord Rintoul, for instance, is made Babbie's father instead of her betrothed, thus robbing the picture of one of its chief elements of suspense and complication. Gavin Dishart, the little minister, is made to blow the horn warning the rebelling weavers of the town of Thrums of the approaching troopers, and then to give himself up to arrest for thwarting the authorities. Following these events, the session of his kirk is made to prefer charges against him in his own parlor. Since none of these things happened in the story and since their interpolation is more or less illogical, a lover of Barrie can naturally be pardoned some indigna-

tion over the untoward originality of the scenario writer. Moreover, the exquisite mother and son theme, so vital a part of the story, has been entirely omitted in the picture. So far as we can gather from the film, the little minister never had a mother. There are many other examples that could be cited to demon-



BABBIE BECOMES A FREQUENT VISITOR AT THE COTTAGE OF OLD NANNY

strate the unsatisfactory freedom that has been taken with the source of the picture, but these illustrations will suffice.

One could pardon a failure to catch the undefinable and fragrantly elusive charm that is Barrie's. It is really too ephemeral a thing to be readily solidified into cold photography. One is aware, however, of a conscious striving for effect and for an appearance of reality that results in a sense of superficiality, a lack of sincerity. There is a too ostentatious simplicity.

The three members of the session who are forced by the machinations of the scenarist constantly to stalk the little minister, constitute a sort of comic relief. Barrie never intended the stern, conscientious rulers of the little kirk to be spies and eavesdroppers, but in the picture they continually conceal their funereal outlines behind the shelter of insufficient trees and open corners, ever scandal-hunting. These upright, God-

fearing men are turned into a matter for a jest.

There was much speculation as to who would be chosen to play the part of Babbie. With a discrimination in keeping with the general tone of the picture, Betty Compson was selected. She has a graceful figure and poses well, but the possibilities in the interpre-

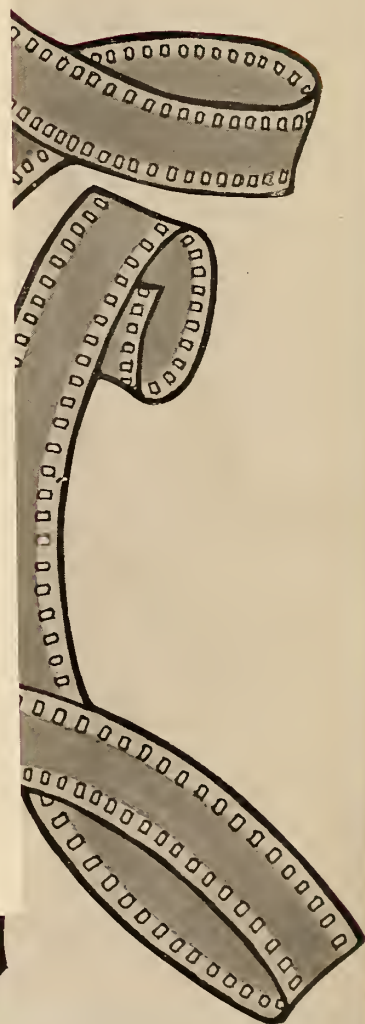
tation of the debonair, perplexing and altogether alluring Babbie are not even surface-scratched. The little minister is an earnest, sincere individual and does as well as can be expected. The person who deserves the greatest praise is the actress who characterized the aged Nanny. The scene where the minister and the doctor call to take her to the poorhouse is probably the most effective in the entire picture. Her quavering accents are almost audible when she says, as the impending disaster comes nearer, "I could live on terrible little."

The pictorial achievements of the picture. Her quavering accents are almost artist of ability, Penrhyn Stanlaws, was directing. Fine photography, however, and wise use of light and shadows and of picturesque scenes will not atone for a classic sentenced to a long, lingering cinematic death.

Released by Famous Players-Lasky.

TION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*



The Film Field

THE number of "educational films" produced by the professional motion-picture companies is increasing and the quality is steadily improving. A number of such films will be listed each month. Any exchange or producer listed in this department will gladly send full information on his service in general or on any particular film.

In offering these selections, however, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies.

In general, films should be viewed by qualified judges before being shown to school children.

FOR THE LITERATURE CLASS

WASHINGTON IRVING—The second of a series portraying great American authors, of which the reel on John Greenleaf Whittier was the first. Visualized glimpses from The Sketch Book introduce such familiar personages as the beloved Rip Van Winkle and the unfortunate Ichabod Crane. The Headless Horseman also gallops through the footage and Irving's picturesque home is presented, but there is a startling defect in the omission of any picture of the author. (*p* and *d*, Kineto Co. of Amer.).

THE BELL OF ATRI—The main story is that of Longfellow's poem of the same name as the title, in which an ill-treated horse rings the bell in the market-place and thus secures justice for himself and the reformation of his master. The reel is prefaced with views of some of the work of the Massachusetts Humane Education Society. (*p*, Educ. Motion Picture Bureau; *d*, National Non-Theatrical Motion Pictures.)

THE BONNIE BRIER BUSH—A film dramatization of Ian Maclaren's well-known novel. Although the episode which furnishes the material for this picture has been vastly enlarged upon, the result is a charming photoplay of Scotch life in real Scotch country that cannot fail to please. (*p* and *d*, Famous Players-Lasky.)

THE LITTLE MINISTER—This delightful narrative has long been one of Barrie's most beloved productions. Its delicate romance and vivid Scotch atmosphere, tinged with the charm that only Barrie can bestow, furnish worth-while material for an interesting photoplay. (*p* and *d*, Famous Players-Lasky.)

FILMS ON NATURE STUDY AND ASTRONOMY

THE EARTH AND WORLDS BEYOND—A one-reel animated summary of the cycles of day and night and of the seasons. This film makes it easy for any child to understand the motions of the earth and the earth's relations to sun and moon—something that frequently is never fully grasped. Taken on a visit to the famous Yerkes Observatory, the pupil glimpses "worlds beyond" through the largest telescope in existence. Sun spots, solar eclipse, lunar craters, the polar caps of Mars, the rings of Saturn and the moons of Jupiter, the Milky Way, with comets and nebulae—these are some of the fascinating things he sees as the great Yerkes telescope reveals them. (*p* and *d*, Society for Visual Education.)

THE SILVER SALMON—The life-history of this kingly fish is one of picturesqueness and tragedy. This reel is brimming with informational views, among which are pictures

In the brackets following the sketch are given the names of producers and distributors, the producer being indicated by the letter "p" and the distributor by "d." For addresses consult lists in this issue. Always write to the nearest exchange, when given; otherwise to the producer. All entries are 1 reel (1,000 ft.) in length unless otherwise specified.

showing the spawning season, closeups of the jaws, the work of the hatcherles and the spectacular return of the salmon from the ocean up the hurrying currents of the northern streams. (p and d, Kineto Co. of Amer.)

THE BEAVER—One of a series of studies of wild life in North America. In this reel, in addition to the views demonstrating the habits of the American beaver, are informational and amusing shots of the raccoon, the California sea-lion, the Alaskan bear and the polar bear. (p and d, National Non-Theatrical Motion Pictures.)

THE BLUE FLY—This reel of 500 feet portrays the various stages in the life-cycle of the blue fly—the laying of eggs, the larval stage, the chrysalis stage, and full maturity. (p and d, National Non-Theatrical Motion Pictures.)

BEETLES—Among the many insects that attain publicity in this reel are the cockchafer, figwort, rove beetle, nettle chafer, soldier beetle, carabus, ground beetle, rose chafer, barley weevil, Asiatic beetle, pine-borer, and death's head beetle. Surely a very complete pictorial gathering of the various beetle clans! (p and d, Kineto Co. of Amer.)

FOR THE GEOGRAPHY LESSON

AT THE WAILING WALL—Where Solomon's stately Temple lies in ruin stands the Wailing Wall whose venerable stones are daily kissed by hundreds of Jews. In addition to the scenes of this place of historic interest, many landmarks recorded in the Scriptures, together with glimpses of the daily life of the city of Jerusalem, are shown. (p, Burton Holmes; d, Famous Players-Lasky.)

SANTA FE—THE CITY DIFFERENT—Few people know that Santa Fe, New Mexico, is supposed to be the second oldest city in the United States and consequently possessed of much historical interest, which this reel makes apparent. Many of the scenes show the annual Santa Fe pageant for which Indians gather from all over the state and, in their native dress, carry on their bizarre and significant dances. (p, Burton Holmes; d, Famous Players-Lasky.)

THE CITY (NEW YORK CITY)—Many of the familiar and picturesque places in this great world-center seen in different moods and in different seasons. (p, Post Nature; d, Famous Players-Lasky.)

AS OLD AS THE HILLS—This Bruce Scenic is an offering of photographic landscape painting which cannot fail to please, so harmonious are the moods and combinations of skies, waters, trees and mountains. The scenes are taken in England, Wales and Switzerland and present many places of historic interest. (p and d, Educ. Films Corp.)

A FAST LIFE—A Chester Outing. The daily life of Indian natives in the highlands of Dutch Guiana could scarcely be described as fast. It is, however, a very industrious life, as the scenes showing weaving, the preparation of food and the crushing of sugar cane will prove. The last part of the reel visualizes a journey through the tropical forests and down a turbulent river. These are the scenes that apparently suggest the title. (p and d, Educ. Films Corp.)

LET'S GO TO THE SOUTH SEAS—The phrase "South Seas" is synonymous with

many people for a land similar to that of the Lotus Eaters, a land where care and anxiety never appear. This picture of the Southern Pacific Islands, with their gleaming beaches and unworried natives, will delight many. (p and d, Educ. Films Corp.)

RAMBLES 'ROUND RIO—Here we go with the marines on shore leave from the U. S. S. *Idaho*, into the country that lies about the city of Rio de Janeiro. This particular section of South America is renowned for its graceful contour of shore line and beauty of mountain and valley. Such a picture is both edifying and instructive. (p and d, Kineto Co. of Amer.)

FOR THE HISTORY LESSON

THE LOUISIANA PURCHASE AND LEWIS AND CLARK EXPEDITION—This reel visualizes the third phase of the "westward movement," showing the causes and immediate results of the purchase of Louisiana in 1803. Animated maps show the large proportion of the country's commerce passing through the Spanish port of New Orleans by 1800. When France acquired Louisiana and restricted this trade, policy dictated the Louisiana Purchase. The next year the Lewis and Clark expedition set out to explore the new territory. This journey is traced by animated map and motion pictures of the country. (p and d, Society for Visual Education.)

IMMIGRATION TO THE UNITED STATES—Animated drawings are used in this reel to show the important "waves" of immigration and to bring out the causes in back of each. The European background of the immigrant is presented, as well as special sections of the United States settled by the English and Dutch, the Irish and Germans, and other foreign peoples. The contributions immigrants have made to the foundation and development of a separate nation are indicated. The fact is pointed out that the future of the United States depends on the children of immigrants as well as on those who have longer enjoyed this country's privileges. (p and d, Society for Visual Education.)

FOR THE CURRENT EVENTS CLASS

PATHE REVIEW NO. 132—Among other things are pictured here the Emperor's Tea Gardens in Japan, showing the picking, sorting and shipping of the leaf; colored views of Venice, that misty Adriatic city; a trip to the summit of Mount Washington, 3,700 feet into the skies, where one can see the country beneath stretch out in an ever-fascinating panorama. The reel also contains footage of slow-motion photography. (p and d, Pathe.)

PATHE REVIEW NO. 135—This reel is begun with a slow-motion analysis of the plays of football. The remaining footage contains a pictorial exposition of the manufacture of dolls, a visit to the famed Hopi Indians of New Mexico, colored views of a Sunday in lovely Alsace, and an animated cartoon featuring canine stars. (p and d, Pathe.)

PATHE NEWS NO. 99—The world's news visualized for you contains the following events: Bridgeport, Conn., survivors of sunken submarine; helium, non-inflammable gas being tested successfully in blimp over Washington, D. C.; Petrograd, scenes of four years' revolution, shops reopen, red flag floats over palace of former Czar; Washington,

ATION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

D. C., President Harding opens 67th Congress, budget; Fort Slocum, doughboys return with war brides; England and Sinn Fein sign peace agreement, Lloyd George, Sir Hamar Greenwood, Arthur Griffith, Michael Collins; Irish Free State established, de Valera; Bert Green cartoon. (p and d, Pathe.)

INTERNATIONAL NEWS NO. 98—Bucharest, Roumania, King Ferdinand, Queen Marie; Toyland at Christmas; New York City, Chas. W. Morse; Douglas Fairbanks and Mary Pickford return from Paris; Belgrade, Serbia, King Alexander; Madrid, Spain, Queen Victoria aids wounded; Kalinin, peasant, President of Russia, family; San Francisco Japanese Baby Show; Boston, new high-pressure system tested; Marshal Foch at Grand Canyon, Ariz., and later at West Point; Chicago stockyard strikers; Chief of Police Fitzmorris. All these interesting people and events are visualized for you in one short reel. (p, International; d, Universal.)

"HOW IT IS DONE"

THE SPIRIT OF LABOR—This reel is an exposition of the steel industry, beginning with the time when the ore is loaded into the big freighters in Lake Superior. Hot blast furnace and Bessemer converter in operation, together with all the various steps in the process, are well visualized. At the end we see the finished product, great steel plates, made ready for shipment to a shipbuilding plant at Hog Island. (p and d, Community Motion Picture Bureau.)

[PRODUCERS AND DISTRIBUTORS NAMED WILL BE FOUND LISTED ON PAGE 51.]

TUNNELING UNDER THE EAST RIVER—A map of Manhattan Island and of East River precedes pictures of complicated engineering processes and equipment. Details include sinking shafts, ground storage dredge, loading plates for delivery to tunnel by electric motors, pumps to care for any water that may enter, concrete cradle, caulking cracks with lead wire, water-tight bolt holes, conduits for cable with concrete lining, etc. A tunnel will inspire much more respect after some of the difficulties in its construction have been made manifest in this vivid manner. (p and d, Community Motion Picture Bureau.)

PETER POINTS THE WAY—Showing the routine required of foreigners arriving third-class at Ellis Island. There is, of course, opportunity to present many incidental views of the harbor of New York and also of devastated European country. The theme that links these many scenes together is the work of the "Y" in dealing with arriving immigrants and in planning for their Americanization. (p, Baumer Films, Inc.; d, Y. M. C. A.) 5 reels.

WHEAT-RAISING AND WHALING—Two widely differentiated industries are pictured in this reel. That dealing with wheat-raising presents the fields of North and South Dakota, Montana and California with full pictorial accounts of the various steps in the process. The last part of the reel carries us to New England and views of the dangerous and picturesque occupation of whale-fishing. (p, Austin Motion Picture Corp.; d, National Non-Theatrical Motion Pictures.)



Question—Kindly give me information respecting various kinds of lamps and methods of using them.—B. W. S., Chicago.

* * *

Answer—(Continued from last month.) The picture, or "frame," on a moving-picture film of standard size is only one inch by three-quarters of an inch. Consequently, the area to be illuminated by the lamp is very small, and if the lamp is to be used efficiently it must be possible to condense its rays on a spot not much more than an inch in diameter. In order to do this it is necessary that the source

of light shall be small—in fact, the smaller the better.

The dimensions of a stereopticon slide are 4 inches by 3¼ inches, or four times those of a moving picture frame. A light may be quite suitable for use in a stereopticon, where a point-source is not so important, and not adapted for use in a moving-picture machine.

The foregoing considerations raise the question as to the best methods of getting a concentrated and brilliant source of light. The answer is that the carbon arc is the most efficient method of securing the desired results, but the use of carbons presents so many difficulties that they should be avoided if possible,

There are certain principles underlying the construction of incandescent bulbs that are easy to understand. If the filament is made of a given material, as tungsten, for example, its length must be proportional to the voltage of the circuit. Obviously, a long filament suitable for high voltage cannot be concentrated into a small spot. The filament must be held so that when it is heated its separate parts will not sag and come into contact with one another, for if it should be "shorted" it would immediately burn out. This condition places limitations upon the construction of a lamp.

It might be supposed that the answer would be to use low voltages but two difficulties arise with low voltages. The first is that a resistance coil of suitable properties must be put in the circuit. Such a coil is costly, it is bulky and cumbersome, it becomes hot, and

the lamp will be burned out if the coil is not used correctly. The second difficulty is that if a low voltage is used (corresponding to low pressure in a water pipe), the amperage (corresponding to cross-section of the pipe) must be increased in

order to secure the necessary wattage, or energy (corresponding to the quantity of water delivered). This makes it necessary to use filaments of large cross-section, which also makes it difficult

to secure concentration of light-source. Such lamps were designed a few years ago and much was hoped from them, but expectations have not been realized.

Lamps for 110 to 120 volts and delivering up to 1,000 watts are being manufactured, in which the filaments are arranged in one plane—the so-called "monoplane" lamp. Moreover, they are mounted in a tubular bulb so that the source can be placed close to the condenser lens, which is a very important condition. When these lamps are employed they should always be placed so that the flat side of the filament plane is toward and in a line with the center of the condenser lens. Additional illumina-

tion may be secured by placing behind the filament a hemispherical reflector. Under these advantageous conditions, not over three per cent of the light radiated by the lamp is actually transmitted to the screen.

—F. R. MOULTON.

THE FILM PRAYER

I AM celluloid, not steel; O god of the machine, have mercy. I front four dangers whenever I travel the whirling wheels of the mechanism.

Over the sprocket wheels, held tight by the idlers, I am forced by the motor's might. If a careless hand mistreads me, I have no alternative but to go to my death. If the springs at the aperture gate are too strong, all my splices pull apart. If the pull on the take-up reel is too violent, I am torn to shreds. If dirt collects in the aperture, my film of beauty is streaked and marred, and I must face my beholders—a thing ashamed and bespoiled. Please, if I break, fasten me with clips; never with pins. Don't rewind me—my owner wants that privilege, so that he may examine me, heal my wounds, and send me rejuvenated upon a fresh mission.

I travel many miles in iron cans. I am tossed on heavy trucks, sideways and upside down. Please see that my own paper band is wrapped snugly around me on the reel and fastened with a string, so that my first few coils do not slip loose in my shipping case, and be bruised and wounded beyond the power to heal. Put me in my own shipping case. Don't make me a law-breaker. The law requires a certain type of can, two address labels, and a yellow caution label. Scrape off all old labels so I shall not go astray.

Speed me on my way. Others are waiting to see me. The next day is the last day I should be held. Have a heart for the other fellow who is waiting, and for my owner who will get the blame. Don't humiliate me by sending me back without paying my passage and insuring me against loss or damage.

I am a delicate ribbon of celluloid—misuse me, and I disappoint thousands; cherish me, and I delight and instruct the world.

—A. P. HOLLIS.

TION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*



"Here are books"-Carlyle

Suggestions for a Program for Health Teaching in the Elementary Schools, by J. Mace Andress and Mabel C. Bragg. Health Education Bulletin No. 10. Washington: Bureau of Education, Department of the Interior. Pp. 108.

Among all the educational reforms that the steady march of time is bringing, there is none more significant and far-reaching than the changing attitude toward the teaching of hygiene and physiology. The old textbook method of imparting general anatomical facts, while still possessing a certain legitimate place in the curriculum, is being overshadowed by a more modern and more individual training in the observation of health rules.

In timely connection with this subject, there comes from the United States Bureau of Education a pamphlet entitled "Suggestions for a Program for Health Teaching in the Elementary Schools." This bulletin, which modestly defines itself as being merely a sane basis for wider experimentation, attempts three ends:

1. To define the goals for an effective program of health education in the schools.
2. To analyze the various factors of school and community that form an integral part of this program, such as board of health, school physician, family physician, school and family dentist, school nurse, teachers and parents, and the contribution that each, if properly co-operating, may be expected to offer.
3. To outline in a general way the school health activities and the methods of teaching that may prove successful.

This bulletin is a document that should be in the hands of every teacher, so necessary and so complete is its informa-

tion. It is assumed nowadays that the school is responsible for the health of each child it enrolls, and nowhere can the teacher, upon whose shoulders rests the direct burden of performance, find material more helpfully suggestive as to methods for renewing and preserving robust childhood.

The pedagogical process is today one not only of health instruction but of health achievement, and is a matter of intimate personal contact between teacher and child. Irresponsible youngsters must first be made aware of the importance of good health and then must be trained in habits of hygienic living—habits which must often be maintained in the face of discouraging odds at home. One of the most difficult tasks of the teacher is to make the entire process an enjoyable one, for without pleasure on the part of the child there will be little improvement.

It is impossible to list in this brief space all the suggestions made in this brochure. Most helpful, however, are those for securing the co-operation of the parents through reports and personal contact; suggestive programs for the hygienic spending of the child's day; standards for promotion and graduation; domestic science courses; the hygiene of the ear, eye and teeth; advice as to proper school furniture; methods of enlisting the aid of health and civic clubs, etc.

It is interesting to note that many of the methods outlined employed to a very large extent the visual appeal. Charts showing the child's increase in weight and height, diagrams demonstrating the nutritional value of various foods, and

picture games played with cards, all of which may easily be made by the children, make an effective demand upon the eye.

The fashioning of scrapbooks can become a very direct way of impressing facts upon the child-mind. These books may contain pictures illustrating health habits with appropriate messages beneath. In one book, for instance, the child selected attractive colored pictures visualizing the separate items that enter into a good breakfast, dinner and supper. Under each combination was written a suitable statement: "A good breakfast for a good little girl," "This dinner will make me strong," "Do you eat a good supper every night?" Into this scrapbook can go many other things also; as, for instance, a graph showing the child's weight month by month. The possibilities of development here are limited only by the ingenuity and imagination of child and teacher.

The pamphlet is copiously illustrated with examples of what may be done with

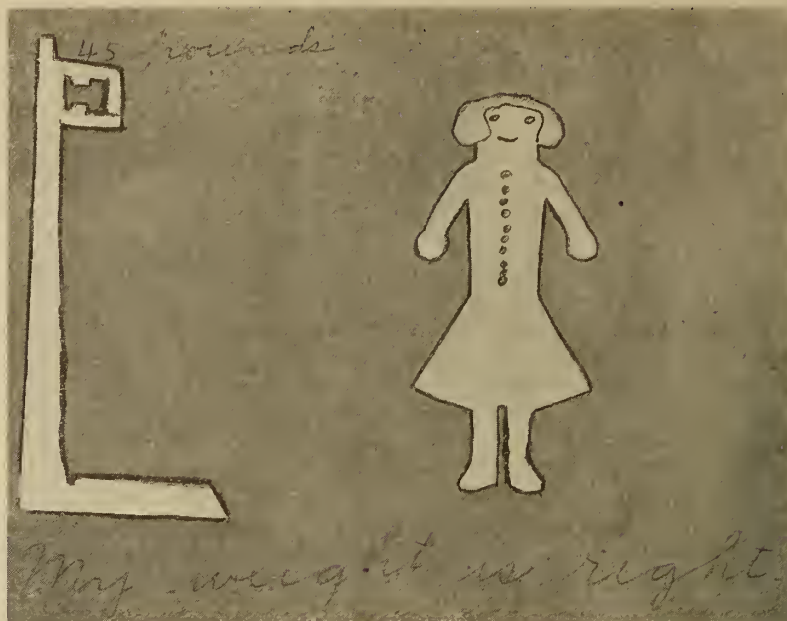
posters. The psychological effect of posters is too well known to discuss here. When the child, however, has aided in designing and in making a poster which is prominently displayed and is commented upon by his associates, he will very naturally feel great pride in living up to the admonitions proffered in its emphatic lines. Many of these posters and their accompanying jingles are so clever that they all but demand reproduction. The two here pictured will give an excellent idea of what may be achieved.

A class book has proved of great interest, a different child contributing each page. "The rhymes were made in language class as a class exercise. The whole book was planned as a class problem, all co-operating in the illustrations and the planning of the whole, different pages being worked out by different children. Colored pictures added greatly to the beauty of the book. Art principles are applied in the arrangement of the page, the placing of the illustrations, the



A STARTLING DEMONSTRATION OF THE FOOD VALUE OF MILK





THE CREATOR OF THIS JUVENILE MASTERPIECE HAS A SOUND CONCEPTION OF THE ELEMENTS THAT ENTER INTO HEALTH BUILDING

margins, and colored margin lines. The accomplishment involves a successful combination of art, language and motor activities."

Much more could be said in commendation of this bulletin which, like other books on pedagogy, is compiled with the best of intentions, and which, unlike too many of these volumes, really attains its purposes. It will be of inspiration to the teacher who is a novice in this particular field as well as to the teacher who has been for some time experimenting with methods and materials.

A Day in a Colonial Home, by Della R. Prescott; edited by John Cotton Dana. Boston: Marshall Jones Company. Pp. 70.

This little volume, "A Day in a Colonial Home," is what might be termed a by-product of a successful demonstration of the value of visualization. How it happened to come into existence is an interesting tale which is related in full in the preface.

It seems that the educational adviser of the Newark Museum was besieged for advice by parents and teachers. "I cannot get my children interested in their ancestors," said a perturbed and disappointed father; "they don't feel any pride in being descended from a lady who came over in the Mayflower." "I wish," wailed a despairing teacher, "that I could make history alive to my pupils."

And so they came for help, and out of their continual importunities was born an idea which resolved itself into a most effective expression of the belief that "seeing" is a vital part in the process of acquiring information.

On the top floor of the Newark Library, the Newark Museum built and furnished a colonial kitchen which was thrown open to the general public for the space of ten weeks. During that time the little room was thronged with visitors of all ages and classes. To make still more real and attractive this concrete re-creation of bygone days, a little narrative was woven about the kitchen by Miss Prescott,

ATION
s • 1⁰⁰ a Year



A COZY CORNER IN THE OLD KITCHEN

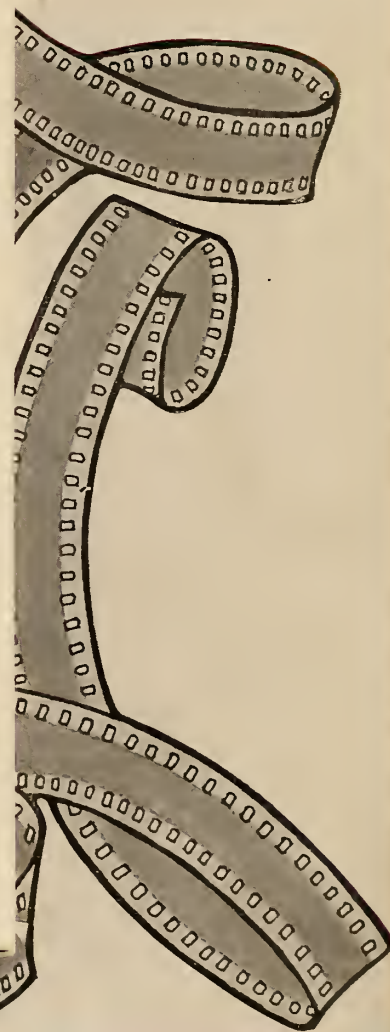
which she repeated to the numerous groups of children who visited the exhibit.

It is this narrative which, together with preface and appendix, fills the seventy pages of "A Day in a Colonial Home." The story itself makes no literary pretensions, being little more than an endeavor to create the proper atmosphere and to give historical background to the furnishings of the little room. As a matter of fact, the effort to adapt the story to the mention of various articles of furniture and sundry old-time cooking utensils is at times very obvious. The lofty moral attitude of the young heroine, while, it must be admitted, entirely consistent with the training of a Puritan home, is nevertheless a bit trying in its Christian perfection, particularly for those who do not expect even their full maturity to reach such ripeness of judgment and habit. The story is to be com-

mended for the contribution it makes to the visual movement rather than for any permanent literary value.

The four full-page illustrations—photographs made of the actual kitchen in the Museum—are most illuminating in their revelation of how simple and yet how effective was this quaint room. Of special interest to those contemplating a similar project is a section setting forth directions as to material, cost and method of construction. Care is taken to supply information concerning the many utensils and other colonial equipment, sketches of which are freely scattered through the pages. Each article pictured is numbered and its purpose and construction are carefully explained in the appendix.

In conclusion, this brief volume, while not of general interest to the reading public, will prove most helpful and suggestive to those who are striving to develop the visual method.





SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

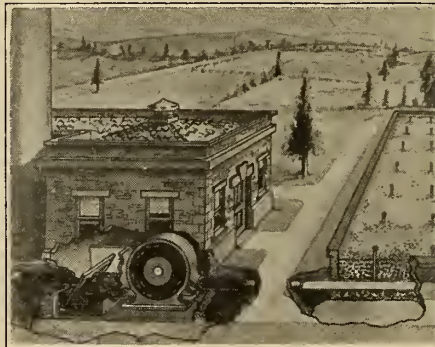
The
Industrial Film Division
of the
Society for Visual Education
specializes in the production of high-class films for
Sales Promotion Propaganda
Advertising Welfare
Instructional Purposes

Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.

We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

INDUSTRIAL FILM DIVISION
SOCIETY FOR VISUAL EDUCATION, Inc.
806 W. Washington Blvd., Chicago



TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA

SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics and Health and Sanitation are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

*Each title is a single reel unless otherwise indicated.
All films are printed on non-inflammable stock, standard width.*

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Representative Democracy in the United States
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands

Nature Study

Where Plants Live
The Monarch Butterfly
Samia Cecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

**For prices and other details regarding SCHOOLFILMS
write direct to headquarters**

The Society for Visual Education, Inc.

806 Washington Blvd., Chicago

220 W. 42nd St., New York

IF YOU SAW IT HERE, PLEASE SAY SO

ATION

s • 1⁰⁰ a Year



THIS ISSUE: **Playing the Health Game**

"Amazing Books for Children"

Says Dr. Frank Crane. Dr. Chas. W. Eliot also endorses them.

"There have come to my desk," writes Dr. Frank Crane in a newspaper editorial, "three remarkable little books. . . . Anyone who has



to do with children, any parent or teacher, will find these books a treasure."

Dr. Crane refers to three publications by Wm. E. Miller, a scientific but practical father, whose main interest is the training of his own growing children. The books are entitled "The Senses and Faculties"—"The Memory"—and "Helps in School."

Mr. Miller prepared them to help teachers and parents impart to children the basic principles of real success in later years. Contain over fifty games and as many exercises, the object of which is to develop the senses of boys and girls.

All three books deal with practical child psychology, and you can see it work through these fascinating games. The book on "memory" is worth the price alone—as good for grown-ups as for children.

"Unusual, practical, clear, and above all interesting," continues Dr. Crane, "they show how to train the child in the very best of ways, the only true way—through play."

Dr. Charles W. Eliot of Harvard writes: "Your general doctrine is thoroughly sound and the methods . . . excellent."

Teachers, this question of sense development is vitally important to the children under your training. You can serve them invaluable by giving them the benefit of the games suggested in these books.

" . . . these three books are so amazing that they seem to be the work of sheer genius," concludes Dr. Crane. The three books contain 348 pages of vital value to children.

SEND NO MONEY. Simply mail coupon and ask us to send the books on prepaid approval. Keep them 5 days, read them and use them. Then either send us \$5.00 for the set or return the books. You'd pay twice the price we ask to get such books as these. This offer is for a limited time only—as a test. So mail the coupon now.

Vaughn Publishing Company,

316 West Second St., Los Angeles, Calif.

Please send me without obligation the three books on "Mind Training for Children," by W. E. Miller.

Within five days I will either return the books or send you \$5.00 in full payment. It is understood that I need not keep the books unless delighted with them.

Name

Address

MISCELLANY

(Continued from page 28)

trashy novel and the illustrated newspaper."

"Not one scenario," says Mr. Rascoe, "has ever been prepared in this country for a motion picture with a significant idea." All good stories have been distorted out of any resemblance to literature and art, "and the very worst and most insipid of American fiction has been gutted." Stage successes like *The Affairs of Anatol* have on the screen "become nauseating, the very wallow and mire of sentimental bawdry. It would seem that the most incompetent journalistic hacks, the most illiterate backwash of the writing profession, are retained to prepare the scenarios for American film productions." Reputable authors who have attempted to contribute of their best to the cinema have become disgusted and have been obliged to assume that the movies are an institution of, by and for illiterates.

The author believes that the cumulative force of such poorly prepared narrative, constantly reduced to its lowest elements of continuous action, devoid of comment, observation and philosophic content, and stripped of the factors requiring cerebration for appreciation, must ultimately have its disastrous effect upon the cerebral processes of that portion of the race which reads solely for vicarious adventure and relaxation.

The Greeks recognized the need of tragedy upon the stage as a means whereby at rare intervals audiences might be purged of the emotions of pity and terror and thus remain good citizens. Americans, however, are being emotionally sapped night after night by the motion picture's false and cheap presentation of life. "The tendency is toward emotional insanity, a complete inability to feel any emotion which is not artificially stimulated."

Whether the movies in this country will ever attract the first-class artist is problematical, in the opinion of Mr. Rascoe. The field is held at present by ex-chauffeurs and ex-scene shifters, who sum-

marily reject all constructive criticism. The ambition of the average motion-picture actor combines exhibitionism and huge salaries as a goal.

The movies may in the future show mechanical improvements, but they will never otherwise improve so long as the present men handle them. It is the author's belief that no American producer has made any effort to realize the possibilities of the motion picture. He has been content "to leave it a sorry mongrel through a miscegnation of bad literature and bad theater, with photography as an inept obstetrician. Truly artistic productions cannot be consummated by a collaboration of hack fictionists, illiterate continuity writers, vainglorious directors, simpering flappers and strutting pomade addicts."

Mr. Rascoe does not omit the subject of censorship. He very much doubts the sincerity of those who yell about injured rights just because the censors occasionally use their scissors. "The indignant editorial writer fresh from an abbreviated version of a Mack Sennett comedy sees in the deleted flashes of bathing beauties an abrogation of the constitutional rights of free speech and a menace to American art and letters." Some of the scenes that the censors have cut, Mr. Rascoe labels as the "obscene and sadistic imaginings of human swine." So far as he himself is concerned, "the movies as we know them might very well be censored off the face of the earth, and the only effect upon the intelligence and art of the country would be one of lasting benefit."

It is true, however, that European producers have begun to realize the possibilities of the motion picture. Some of the foreign productions reaching these shores show indications of real artistic understanding. It is "thumbs down," though, for the American producer and the American film.

In reply to Mr. Rascoe there comes an article by the Right Honorable Sir Gilbert Parker in the December number of *THE BOOKMAN*. The arguments of this gen-

tleman—intended, no doubt, to be conclusive refutation of the incendiary statements he is answering—are of the "you-didn't-I-did" type and, therefore, not so convincing as they might be.

Quite reasonably, he accuses Mr. Rascoe of undue pessimism and propounds a gentle theory as to the disturbing psychological results of the recent war. We find Sir Gilbert insisting that one must make allowance for the views of so violent a pessimist, since his attitude is naturally more or less prejudiced.

Sir Gilbert finds this ardent picture antagonist to be un-American. How could any real patriot say such dreadful things about his own countrymen, actually classifying most of them as low-grade morons? Here the English author delivers himself of a splendid eulogy of us, our business enterprise, and our high social life. He believes that as a nation we really have some imagination, Mr. Rascoe to the contrary notwithstanding.

The statement that reputable authors willingly prostitute their genius to pocket easy and ill-gotten money from the film exchanges is easily disposed of, for the Right Honorable Sir Gilbert Parker is able to cite himself and other distinguished writers as proof that some genius, at least, has not been prostituted.

Mr. Rascoe makes the unkind remark that there never has been a photoplay produced in this country with the ghost of an idea. The author of "The Right of Way" knows from actual experience that the big film companies are rejecting volumes of material without ideas and demanding originality and thought.

There are no great actors on the screen, observes Mr. Rascoe. What about the Barrymores, George Arliss, Elsie Ferguson and many others? demands Sir Gilbert.

The titled gentleman, however, shatters our confidence in the accuracy of his artistic perceptions when he declares that "Broken Blossoms" is as great a picture as "The Cabinet of Dr. Caligari," and that Cecil DeMille's productions do not suffer in comparison with foreign productions.

TION

s • 100 a Year



French with its Importance, Prestige and Universality, stands today as a sign of Thorough Education and Refined Culture.

LE FRANCAIS POUR TOUS

Subscription \$2.50 per year.
35c per copy.

The only French magazine published entirely in French in the United States of America.

ESPECIALLY ADAPTED FOR THE
TEACHER AND STUDENT
OF FRENCH.

LE FRANÇAIS POUR TOUS

Published under the auspices of the Alliance Française of Detroit, in order to bring about a better understanding between the United States and France, and to provide the American French teacher, French student, and all lovers of French with the best available French reading matter at a nominal cost.

Le Français Pour Tous
offers monthly the best French
Short stories Novels
Serials Travels
Anecdotes Cartoons
Illustrations Hints for the
Cooking recipes French Students
Jokes Actualities
French puzzles and contests
with prizes

Articles of especial interest to teachers and students of French contributed by prominent Professors of American Universities.

In each issue one of the most popular French songs published with words and music.

LE FRANCAIS POUR TOUS PUBLISHING CO.

131 Junior College Bldg.
Cass, Warren and Hancock Aves.
Detroit, Michigan

MODELS AS VISUAL EDUCATORS

(Continued from page 24)

At the end of the course a series of models placed on a table where students can have easy access to them will be of great help in reviewing the work that has been covered. Just before examination time it is no uncommon sight to see a group of students with notebooks and texts checking up on their knowledge by means of models. It is a noteworthy fact that when a few students get together to examine the model of some specimen that has been studied, there seems to be an implied challenge to each member of the group to name all of its parts; if one hesitates for an instant, another is always eager to supply the necessary information. All of which merely goes to indicate how the use of such visual aids stimulates interest.

Models as Examination Material

Models may also be used to good advantage as a means of giving practical examinations, on the plan of requiring the student to point out and tell about the different structures. In a series of models showing the development of an animal, such as amphioxus or the frog, the student can be asked, for instance, to arrange them in proper sequence. In so doing he necessarily visualizes the changes that take place in the cleavage of the egg, the formation of the germ layers, and the successive processes in the development of the individual.

The Habit of Visualizing

Another important fact which has forced itself upon the writer's observation is that students in courses where visual aids are employed inevitably form habits that affect their work in other courses. Having formed the habit

(Continued on page 52)

Reference List of Producers and Distributors

(Only producers and exchanges whose productions are named in this month's instalment of "The Film Field" are listed on this page.)

Community Motion Picture Bureau
46 West 24th St., New York City.
Kineto Company of America
71 W. 23rd St., New York City

National Non-Theatrical Motion Pictures
232 W. 38th St., New York City
Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago
Y. M. C. A. Motion Picture Bureau
347 Madison Ave., New York City

Reference List of Film Exchanges

EDUCATIONAL FILMS CORPORATION

Atlanta, Ga.	Louisville, Ky.
Boston, Mass.	Milwaukee, Wis.
Buffalo, N. Y.	Minneapolis, Minn.
Chicago, Ill.	New Haven, Conn.
Cincinnati, Ohio	New Orleans, La.
Cleveland, Ohio	New York City
Dallas, Tex.	Omaha, Nebr.
Denver, Colo.	Philadelphia, Pa.
Des Moines, Ia.	Pittsburgh, Pa.
Detroit, Mich.	St. Louis, Mo.
Indianapolis, Ind.	San Francisco, Calif.
Kansas City, Mo.	Seattle, Wash.
Los Angeles, Calif.	Washington, D. C.

FAMOUS PLAYERS-LASKY CORP.

Albany, N. Y.	New Orleans, La.
Atlanta, Ga.	New York City
Boston, Mass.	Oklahoma City,
Buffalo, N. Y.	Okla.
Charlotte, N. C.	Omaha, Nebr.
Chicago, Ill.	Philadelphia, Pa.
Cincinnati, Ohio	Pittsburgh, Pa.
Cleveland, Ohio	Portland, Me.
Dallas, Tex.	Portland, Ore.
Denver, Colo.	St. Louis, Mo.
Des Moines, Ia.	Salt Lake City,
Detroit, Mich.	Utah
Kansas City, Mo.	San Francisco, Calif.
Los Angeles, Calif.	Seattle, Wash.
Minneapolis, Minn.	Washington, D. C.
New Haven, Conn.	

PATHE EXCHANGE, INC.

Albany, N. Y.	Milwaukee, Wis.
Atlanta, Ga.	Minneapolis, Minn.
Boston, Mass.	Newark, N. J.
Buffalo, N. Y.	New Orleans, La.
Charlotte, N. C.	New York City
Chicago, Ill.	Oklahoma City, Okla.
Cincinnati, Ohio	Omaha, Neb.
Cleveland, Ohio	Philadelphia, Pa.
Dallas, Texas	Pittsburgh, Pa.
Denver, Colo.	St. Louis, Mo.
Des Moines, Iowa	Salt Lake City, Utah
Detroit, Mich.	San Francisco, Calif.
Indianapolis, Ind.	Seattle, Wash.
Kansas City, Mo.	Washington, D. C.

UNIVERSAL FILM EXCHANGES

Albany, N. Y.
Atlanta, Ga. (Consol. Film & Supply Co.)
Baltimore, Md.
Boston, Mass. (Amer. Film & Supply Co.)
Buffalo, N. Y.
Butte, Mont.
Charleston, W. Va.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex. (Consol. Film & Supply Co.)
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
El Paso, Tex.
Fort Smith, Ark.
Indianapolis, Ind.
Jacksonville, Fla. (Consol. Film & Supply Co.)
Kansas City, Mo.
Los Angeles, Calif.
Memphis, Tenn.
Milwaukee, Wis.
Minneapolis, Minn.
New Haven, Conn. (Big U Film Exchange)
New Orleans, La. (Consol. Film & Supply Co.)
New York City (Big U Film Exchange)
Oklahoma City, Okla.
Omaha, Nebr.
Philadelphia, Pa. (Interstate Films, Inc.)
Pittsburgh, Pa.
Portland, Me. (Amer. Feature Film Co.)
Portland, Ore.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Sioux Falls, S. Dak.
Spokane, Wash.
Washington, D. C. (Wash. Film Exchanges)

TION

s • 100 a Year

MOTION PICTURE USERS

Schools, Churches, Institutions, Manufacturers and other non-theatrical users, contemplating the purchase of motion picture machines and films, should obtain a booklet of valuable information which is supplied without cost by

The Associated Manufacturers of Safety Standard Films and Projectors, Inc.
1 Suite 1419, 440 4th Ave., New York City

TEACHERS—

Men or Women

Can Earn \$5.00 to \$6.00
Per Day in Spare Time, Selling

FREEMAN'S Dust Absorber

No Capital
No Experience Needed

Your spare time by our plan will solve all your money problems.

This is a patented article with little competition, used by every car owner and in every household. BIG PROFITS in continuous repeat orders certain. EASY TO SELL. Write for special proposition.

Let us explain how it prevents sickness in the homes where it is used.

Freeman Distributing Co.

Dept. B. Mining Exchange Bldg.
Colorado Springs Colorado

TEACHERS OF DESIGN

in public schools or private studios will find our magazine

"KERAMIC STUDIO"

a substantial aid in giving them new ideas. Price, \$5.00 the year of eleven numbers. Sample copy, 20c.

KERAMIC STUDIO PUBLISHING CO.
Clinton Street, South Syracuse, N. Y.

MODELS AS VISUAL EDUCATORS

(Continued from page 50)

of visualizing their knowledge in one branch of study, they naturally get into the way of forming visual images in other courses as they study their texts, do research in reference books, or listen to lectures and recitations. The mind that is rich in such visual images associated with definite ideas is the mind that functions most efficiently, the images and ideas being supplementary to each other.

PLACE OF GRAPHS IN BUSINESS

(Continued from page 20)

zones of the community, territory of tributary railway and interurban electric travel, mail-order selling areas, and the grade, type, kind and qualities of merchandise which the community may properly afford.

Seasonal Problems Pictured

The third diagram here reproduced is typical of the numberless uses to which such graphs may be put in the department store field. The fact that twelve suits at \$80 were sold during a certain week, fourteen at \$60 and twenty-one at \$40, while at another season the chart showed for the same goods in the same length of time only one, three and five sales, respectively, gives an intelligent basis for further study which would have a bearing on the buyer's problems and on matters of advertising and the employment of help. The seasonal fluctuations in sales during the year are pictured in a way that enables the interested executive, and even the outsider, to take in the facts at a glance.

The National Cash Register Company has demonstrated the value of the chart in the following ways: (1) picture of a sale; (2) ten elements of good salesmanship; (3) diagrams of the meanings of such phrases as "service" and "courtesy"; (4) explanatory diagrams regarding standard instructions in making out sales slips, etc.; (5) general inspirational diagrams; (6) charts showing how to sell individual articles.

A Short-Cut to Facts

"Facts! I want facts, facts, facts!" declared Theodore N. Vail, the man who looks after two-thirds of the entire world's telephone business.

"I don't want you to guess; I can guess myself. I want you to know!" was the reprimand administered by Judge Gary, of the United States Steel Corporation, to a secretary whose answer to his question was non-committal. And today charts are used freely to keep executives of this great industrial organization accurately posted on all details of the business.

"Figures never lie" is a maxim we have heard so often that we almost believe it. And yet, with the figures in front of them, people have been misled and defrauded; they did not have all the figures. Without the whole truth, even figures may give a lop-sided story and the effect may be fraudulent. But the properly made chart brings into the light all the factors which enter into the problem and each is shown in its true relation to all the others. "Here," says the graph, "is the truth, the whole truth, and nothing but the truth."



FOR projection of lantern slides in the school, lodge, church, family circle; no place too small or too large for
SPENCER DELINEASCOPE
It's as far ahead of the old Stereopticon as the Automobile is of the wheelbarrow. Five models. Prices from \$25.00 to \$185.00. Send for illustrated folder.
SPENCER LENS COMPANY, Buffalo, N.Y.

THE AMERICAN ART STUDENT

Established 1916

21 Park Row—New York City

A monthly magazine devoted to Art, Ceramics, Lettering, Figure Drawing, Cartooning, Anatomy, and Poster Work



LARGEST CIRCULATION of any exclusively art magazine in America; for students and artists

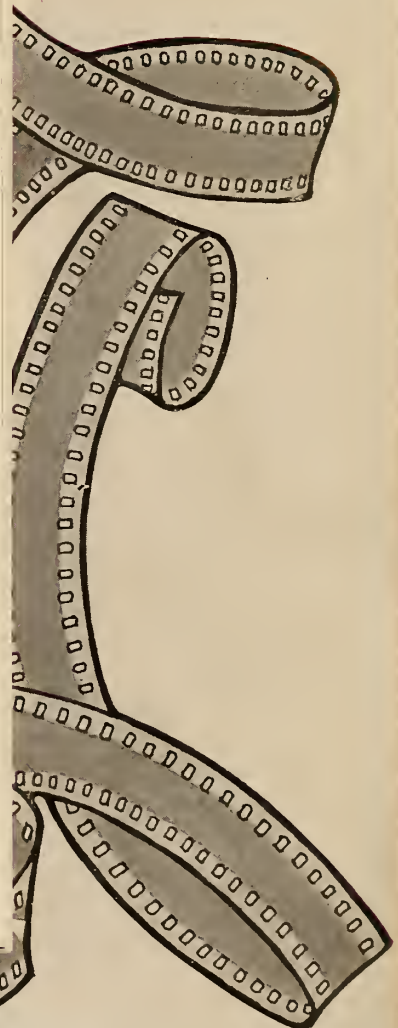
\$2.50 Yearly; Canadian \$3 Sample Copy, 25 Cents

VISUAL EDUCATION
A National Organ of the New Movement in American Education

Only ONE DOLLAR the year, for ten interesting, informing, stimulating issues.
2-year subscription, \$1.50 3-year subscription, \$2.00

ATION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

“How We Secured Our School Projector”

(Continued from page 32)

Greencastle, Indiana

Undergraduates working through the Y. M. C. A. and Y. W. C. A. secured a projection machine and equipment for De Pauw University by the issuance of stock. As soon as this was sold and the capital invested in the machine it became a source of revenue. The students gave two public shows a week. By the close of the school year admissions had netted enough money to take care of the entire equipment and pay dividends to the stockholders besides.

Huntington, Indiana

Nominal admission charges of five and ten cents are expected to reimburse the Board of Education for the purchase and installation of a projection machine, as well as to cover film rentals and other incidental expenses.

Jefferson, Iowa

The Parent-Teacher Department of the Jefferson Woman's Club came to the aid of the schools by staging several home-talent plays, the proceeds of which bought a projector and the necessary equipment, about \$400 being invested.

Johnstown, Pennsylvania

A benefit show was given to demonstrate a portable projector and to raise funds for its purchase. The machine was secured and is being used for both the grade and the high schools.

Joliet, Illinois

In accordance with the established custom of the senior class at St. Francis Academy, which always makes a parting gift to the school, the last graduating class presented the school with a moving-picture machine.

Kansas City, Missouri

Students of the Northeast High School paid for their own projector by money realized from entertainments and sport contests.

Knoxville, Iowa

The Woman's Club of Knoxville do-

nated a motion-picture machine to the high school.

Lapeer, Michigan

A balance of \$340 in a fund belonging to the Camp Fire Girls was donated to the schools for the purchase of a portable projector for educational use.

Lexington, Kentucky

The Johnson Community Club, which met in the Johnson School building, purchased a projection machine for the school for educational and entertainment purposes.

Little Rock, Arkansas

The School Improvement Association has given a motion-picture machine to the school. No admission is charged for the public performances, but contributions are received from those in attendance.

Logan, Utah

Two years ago the Board of Education advanced \$2,300 for two projection machines, a direct current generator, a screen and other miscellaneous equipment. Aside from educational films in the classroom, a first-class movie entertainment is given every Friday evening in the high school auditorium. A ten-cent admission fee is charged and the weekly attendance averages between 500 and 600. The proceeds from these Friday evening shows have not only reimbursed the School Board but have paid film rentals and incidental expenses.

Marine City, Mich.

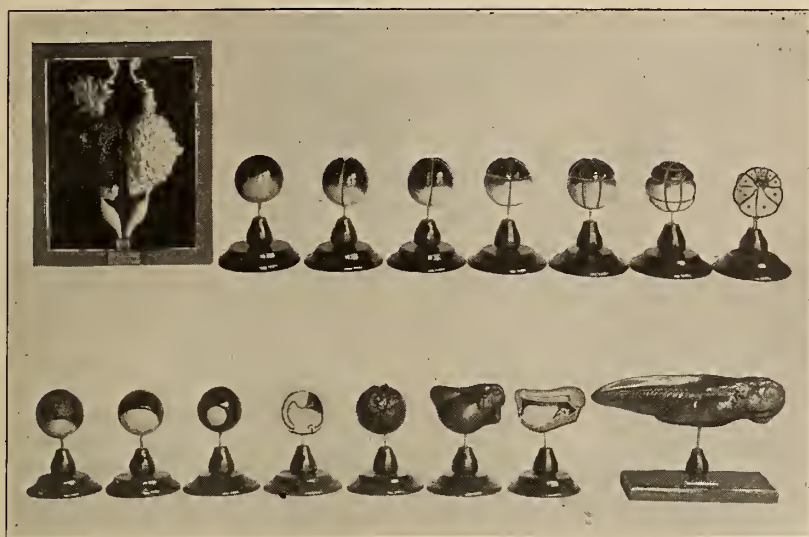
A teachers' committee put on a series of motion picture "pay shows" to raise money for their visual education fund.

Monmouth, Oregon

The Normal School paid for their machine from the proceeds from their public picture shows. They began with a borrowed machine, having no equipment whatever of their own. Now they own two projectors, a mercury arc-rectifier, a spotlight, a lantern, and various other equipment.

(To be continued)

Jewell Models



150. Development of the Frog

SUCH a set as the one illustrated above enables the teacher to explain in the best way the development of the frog. There are 16 pieces in the set, beginning with the female urinogenital system. (This has been remodeled to show a complete kidney on one side and the oviduct is less coiled.) Shows various stages of cleavage of the egg, blastula, gastrula, neural folds, small tadpole, same sectioned, tadpole with external gills, etc.

The eggs are $2\frac{1}{4}$ inches in diameter, the large tadpole is 9 inches long. Mounted on walnut-stained, polished pedestals, each with aluminum numeral.

Price, \$47.50

Biology is a science in which models are a valuable aid in teaching, for they aid in forming correct impressions and also cause those impressions to be retained by the student because he has **VISUALIZED HIS KNOWLEDGE**. In the time usually allotted to class periods, even the best teacher cannot adequately demonstrate the specimens without the aid of models.

Prof. E. R. Bryant of Muskingum College says:

"I wish to assure you that your models showing the development of the frog are exceedingly useful in teaching this subject to young students of Biology. I consider your price very reasonable."

Prof. R. C. Mullenix of Lawrence College writes concerning a large shipment of models:

"This is to say that the Jewell Models which I received this fall are satisfactory in every respect. I find them valuable to introduce after the completion of laboratory work, as means of review, and for clearing up some points not satisfactorily worked out in dissections."

Over forty colleges and universities are now using the set illustrated above.

ORDER YOUR SET OF MODELS TODAY

JEWELL MODELS ^{Address} - **Carlinville, Illinois**

ATION

s • 1⁰⁰ a Year

CLASSIFIED ADVERTISING

TEACHERS

1000 Teachers Wanted for Schools, All Kinds

NATIONAL TEACHERS AGENCY, Inc.
D. H. COOK, Manager
Philadelphia and Pittsburgh, Pa. Syracuse, N. Y.

AGENTS AND SALESMEN

SPARE TIME WORK

Teachers and students, take orders for portraits, photo pillow tops, frames, medallions, gold window letters for stores and offices, luminous crucifixes, books, photo pennants, religious and negro pictures, art photos, waterproof aprons, and other agents' specialties. 30 days' credit. Catalogues and samples free. James C. Bailey Co., 604 Blue Island Ave., Chicago, Ill.

\$100 weekly possible through our exclusive representative plan. Fastest selling Ford accessory on market. "Masco" Splash Fender for front of Ford car eliminates rattling of front fenders, prevents radiator, lights and front of car from becoming mud-splashed, induces greater volume of air into radiator, reflects lamp's rays onto road in night driving, and beautifies lines of car, putting Ford car into higher-priced class. The Ford car being the only car without a splash pan protection, every owner wants this essential attachment. Any one can attach fender in few minutes. Retails at \$6.50. Send \$4.00 for agent's sample and contract application for territorial rights. Give references. Mayer Auto Accessories Corporation, Manufacturers, 333-335 Washington St., Buffalo, N. Y.

Teachers—Investigate the possibilities in the life insurance business. Full or part time. Address Claude T. Tuck, Secy., Century Life Insurance Co., Indianapolis, Ind.

FILMS

FILMS FOR RENT—Suitable for school, church and social uplift societies. One dollar per reel. Write for list. Sanor Film Company, Kankakee, Illinois.

READINGS and ORATIONS Plays and Pianologues

The variety of titles and subjects our service covers, and our low prices will surprise you. We have a catalog waiting for you.

Write for it.

IVAN BLOOM HARDIN COMPANY
3808 Cottage Grove Ave. Des Moines, Iowa

All orders filled within twenty-four hours.

THE PICTURE HOUR

(Continued from page 30)

the mother would stay at home with her little one. Why do you suppose she didn't?

With what arguments does this picture supply you to prove that the Puritans were good men and women?

The winters in New England, where the Puritans lived, are dismal and cold, as you can very easily imagine from the gloom of this picture. How do you think the cold and the danger would affect their dispositions? Are you always jolly and pleasant when you are cold and scared?

Observe how they dressed in those days. Would you rather wear clothes like these or like those we wear today? You know that the busy housewife had to spin and weave the cloth out of which the garments were made, and she made them very strong and durable so that they would last for a long time. Don't look at the picture for a while, but try to make from memory a little sketch of a Puritan costume.

Be sure not to forget to put a Bible into your Puritan's hands. Do you find many in this picture who are not carrying Bibles?

By the way, do you think people went so far and along so dangerous a way every Sunday morning to hear a very short sermon? It is so easy to go to church nowadays that you probably attend every Sunday.

—MARY McKENZIE FRENCH.

A Little Booklet

"Hints to Music-Loving Owners of Talking Machines"

should be in every music lover's possession. It is sent by mail post-paid, price ten cents. Address J. H. Ellis, Box 882, Milwaukee, Wis.

Is This YOUR Copy of VISUAL EDUCATION

That You Are Reading?

If not, why not take out a subscription in your own name and begin a file? A new volume starts with the January 1922 issue.

Printing
and
Advertising
Advisers



*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

Day and Night
Service
All the Year
Around

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed it is our opinion you have not done your duty by your institution or yourself until you have learned about the service Printing Products Corporation gives and have secured prices.

*We ship or express to any point
or mail direct from Chicago*

Make a Printing Connection with a Specialist and a Large and Reliable Printing House.

You Secure From Us

Proper Quality—Quick Delivery—Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of "Visual Education"
what they think of our service and prices.*

PRINTING PRODUCTS CORPORATION

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

Artists—Engravers—Electrotypers
English and Foreign Languages

Polk & La Salle Streets

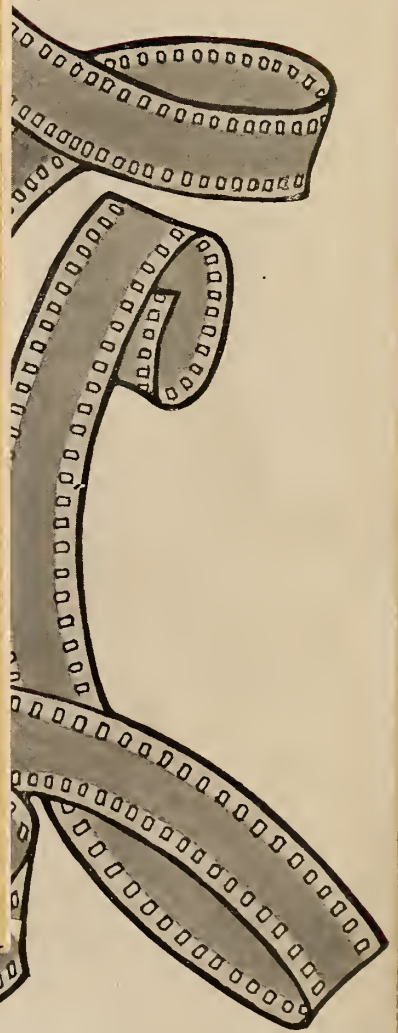
CHICAGO, ILL.

TELEPHONE
Wabash 3380
Local and Long Distance

IF YOU SAW IT HERE, PLEASE SAY SO

ATION

s • 100 a Year



THIS ISSUE: **Playing the Health Game**

Ready—

EASTMAN FILM CEMENT

CUT where you will, splice with Eastman Film Cement and for all practical purposes the reel's original resistance to strain both in projection and re-wind is restored. The splice is secure against break or buckle.

Eastman-made and Eastman-tested as the presence of this seal on the container testifies:



Eastman Film Cement is the only cement that may be used successfully with either Regular or Safety film. It may be obtained in 1 ounce and 16 ounce bottles, and gallon containers.

EASTMAN KODAK COMPANY

Motion Picture Film Dept.

Rochester, N. Y.

VISUAL EDUCATION

ATION

s • 1⁰⁰ a Year

Picture Studies of Animal Emotions

The Picture Hour

Visual Activities the World Over

The Films in Review

*Department of Superintendence and Other
Programs*

"How We Secured our School Projector"

The Film Field

Teaching Agriculture by Chart and Film

*The A-B-C of Using a Stereopticon in the
Classroom*

*Suggestions for Using Visual Methods in
Teaching Hygiene*

*Free Nature Education—The School Service of
the American Museum of Natural History,
New York City*

FEBRUARY 1922

Published by the
Society for Visual Education, Inc.

15 cts 1⁰⁰ a year



THIS ISSUE: *Playing the Health Game*



© K. V. Co. DELIVERING MILK—VENEZUELA

*Eagerness
to Learn
Comes with
the
Use of
Pictures*

Did you ever ask a boy to tell you about something he **HAD SEEN**?

Did you note the eagerness and enthusiasm of his response?

Why not put this spirit into school work by **LETTING HIM SEE**, each day, what he is learning about?

The Keystone System for Visual Education—six hundred stereographs and lantern slides—illustrates each day's work.

Write us for a demonstration

KEYSTONE VIEW COMPANY, Inc.

"Originators of Systematized
Visual Education"

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*

IF YOU SAW IT HERE, PLEASE SAY SO

ATION
s • 100 a Year

Get Acquainted With Your Neighbor You might like him

You may join your neighbors in your own community, and in many others, in a nation-wide movement for

Man-Building
Business-Building and
Community-Building

This opportunity is offered you through associate membership in

THE BUSINESS SCIENCE SOCIETY

An organization of men and women who are studying natural laws related to human activity, and who believe in the *PRINCIPLE OF SERVICE*.

May we tell you more about it? Address

MARTIN-L. ZOOK

Division of Associate Membership, The Business Science Society
77-79-81 Madison Avenue MEMPHIS, TENN.

THE AMERICAN MATHEMATICAL MONTHLY

OFFICIAL JOURNAL OF

The Mathematical Association of America

Is the Only Journal of Collegiate Grade in the Mathematical
Field in This Country

This means that its mathematical contributions can be read and understood by those who have not specialized in mathematics beyond the Calculus.

The Historical Papers, which are numerous and of high grade, are based upon original research.

The Questions and Discussions, which are timely and interesting, cover a wide variety of topics.

Surveys of the contents of recent books and periodicals constitute a valuable guide to current mathematical literature.

The "Topics for Undergraduate Mathematical Clubs" have excited wide interest both in this country and in Great Britain.

The Notes and News cover a wide range of interest and information, both in this country and in foreign countries.

The Problems and Solutions hold the attention and activity of a large number of persons who are lovers of mathematics for its own sake.

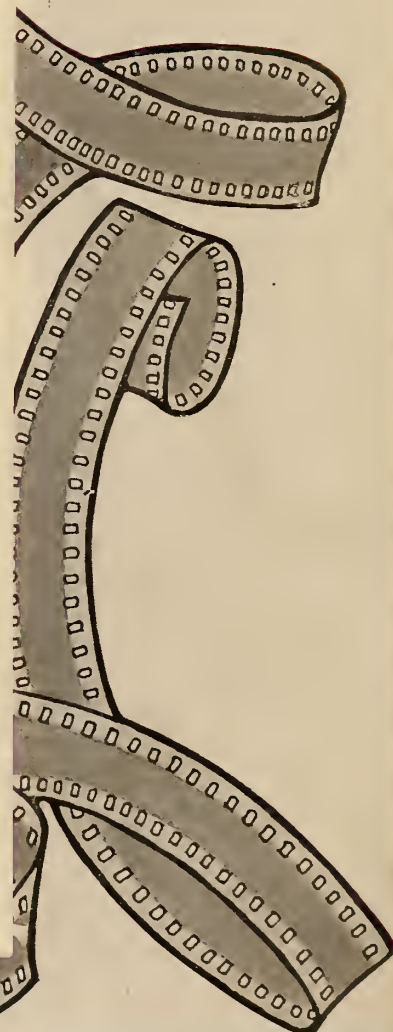
There are other journals suited to the Secondary field, and there are still others of technical scientific character in the University field; but the monthly is the only journal of Collegiate grade in America suited to the needs of the non-specialist in mathematics.

Send for circular showing the articles published in the last six volumes.
Sample copy and all information may be obtained from the

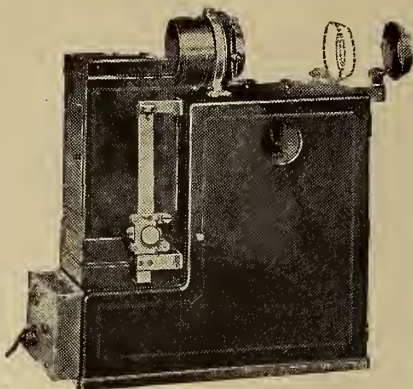
SECRETARY OF THE ASSOCIATION

27 King Street

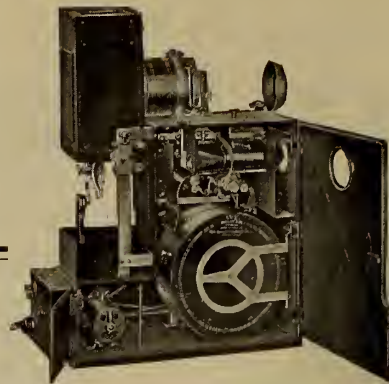
OBERLIN, OHIO



THIS ISSUE: *Playing the Health Game*



This cut shows the lamphouse in position for projecting motion pictures. Merely raising the lamphouse converts the machine in an instant into a stereopticon.



This cut shows the lamphouse in position for projecting stereopticon slides. While slides are being projected, the operator may be changing reels. Inside pilot light serves his needs.

The "ACME" S. V. E.

A Combined Film-and-Slide Projector

A SEMI-PORTABLE Motion Picture Projector that is superior to any other similar machine ever offered, with Stereopticon Attachments of equally high quality—a combination that offers *the ideal projector* to Schools, Churches, Community Centers, Y. M. C. A.'s, Institutions, Women's Clubs, Lecturers, etc. So simple to operate that a boy can conduct the showing.

ONE Machine That Does the Work of TWO

APPROVED

By the National Board of Fire Underwriters



HOME OF THE "ACME" S. V. E. PROJECTOR
The largest plant in the world devoted to the exclusive manufacture of portable and semi-portable projectors

THE "Acme" S. V. E. is the ONE machine with which you can give a combination film-and-slide program without delays for readjustment. The transformation is practically instantaneous—you have only to move the lamphouse up or down.

Slides can be shown at any point in the film, to introduce new matter or give added emphasis to some particular feature. Slides can be thrown on the screen during the wait between reels. Thus there is no let-down to the interest and attention of the audience—an advantage that appeals to speakers and chairmen of programs.

**Some Other Features That Make the "Acme" S. V. E.
The Projector Without a Peer
For Classroom and General Non-Theatrical Use:**

Safety automatic shutter
Center-dividing metal film
magazines
All-metal (aluminum) case

Instant framing and focusing
Unequaled illumination
Motor-driven independent re-
wind

The "Acme" Portable Booth

For schools and churches where a booth may be necessary. Mounted on rubber-tired casters. So designed and proportioned that it can be taken from room to room, through any doorway, without taking apart. Compact and substantial. Made of 20-gauge iron, black enameled.

The "Acme" Auto Generator

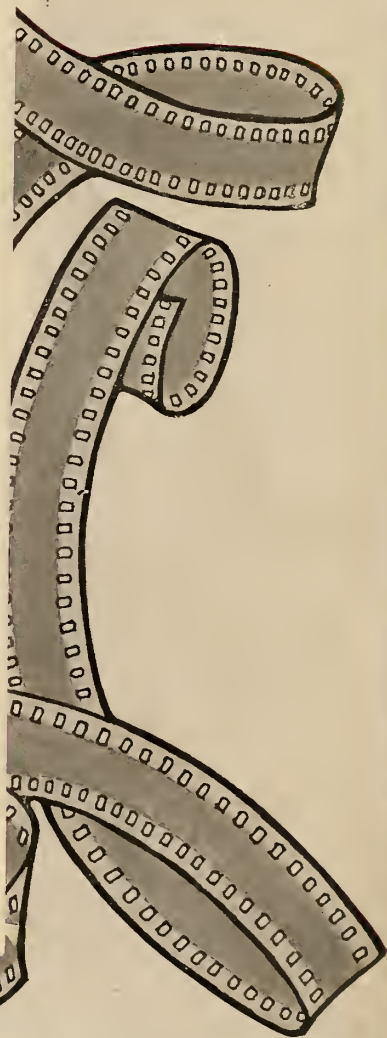
Makes moving pictures possible where electricity is not available. Provides current for lighting home, grounds, church or school. Can be operated on any automobile—attaches to running board. No mechanic necessary. Weight, 50 lbs. Generates standard 110 volts; capacity, 1050 watts.

*See this popular model at the N. E. A.—Booth No. 300,
Leiter Building*

ACME MOTION PICTURE PROJECTOR CO.
806 West Washington Boulevard . CHICAGO, ILLINOIS

ATION

s • 100 a Year



THIS ISSUE: Playing the Health Game

LANTERN SLIDES

Professor Edwin B. Frost and his staff of Yerkes Observatory have selected and can furnish, in sets of one hundred, choice slides on the following subjects: Solar Phenomena; The Moon; The Planets; Comets; Stars and Clusters; Nebulae; The Milky Way; Stellar Spectra; Buildings and Instruments.

This "hundred list" is issued for the benefit of institutions or individuals desiring a small collection thoroughly representative of present astronomical science. The price of the lantern slides is 75 cents each, but for this special collection of one hundred slides, the price is \$62.50, a saving of approximately \$12.00. Carriage is charged to the purchaser.

Send for our circular describing the Select List of One Hundred Slides



The University of Chicago Press

5791 Ellis Avenue

Chicago, Illinois

Every Teacher Is a Salesman

THE teacher "sells" education to more or less reluctant prospective "customers." He represents one of the most important "lines" in the world. Business thinkers tell us that the principles of Salesmanship underlie *all* practical human activities; that a knowledge of the methods of successful selling enables the minister to be a more efficient and successful minister, the lawyer a better lawyer, and so on. If this is true—and it is—it will *pay*, as well as entertain and interest and inspire you, to read "The Main Entrance to Successful Selling," as it has been called: **HOW TO SELL—AND WHAT**. In order to make it as easy as possible for you to get acquainted with this Popular Periodical of Selling Pep and Punch, we are making educators this

Special Introductory Offer

HOW TO SELL —and What—

3 Months for Only 25 Cents

We have another reason. We want you to know this unique Experience Exchange and Clearing House of Sales Information, because we want you to be in a position to tell ambitious young people about it when they come to you for vocational advice. *You* need to know about selling, you see, to guide *them* into this Profession of Golden Opportunity. Three months for 25 cents (stamps or coin) if you mention **VISUAL EDUCATION** and address

KABLE-SPALDING CO., Dept. 55—22 W. Monroe St., Chicago

Visual Education

A MAGAZINE DEVOTED
TO THE CAUSE OF
AMERICAN EDUCATION

Rollin D. Salisbury, President - Harley L. Clarke, Vice-President
Forest R. Moulton, Secretary - Carl H. Mote, General Manager
L. M. Belfield, Managing Editor



Subscription \$1.00 a year.
Single copies 15 cents.
Published every month
except July and August.

VOLUME 3

FEBRUARY, 1922

NUMBER 2

IN THIS NUMBER

Free Nature Education—The School Service of the American Museum of Natural History, New York City.....	62
<i>George H. Sherwood</i>	
Suggestions for Using Visual Methods in Teaching Hygiene.....	70
<i>F. M. Gregg</i>	
The A-B-C of Using a Stereopticon in the Classroom.....	75
<i>Dudley Grant Hays</i>	
Teaching Agriculture by Chart and Film.....	78
<i>Edgar W. Cooley</i>	
"How We Secured Our School Projector".....	82
Program for the Annual Meeting of the Department of Superintend- ence and Other N. E. A. Departments.....	84
Picture Studies of Animal Emotions.....	87
<i>Frank Morley Woodruff</i>	
The Films in Review.....	91
Miscellany	96
The Picture Hour (Washington Crossing the Delaware).....	100
Visual Activities the World Over.....	102
The Film Field.....	106

Published by the Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago 220 W. 42nd Street, New York

TION

s • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

Visual Education

Copyright February, 1922, by the Society for Visual Education, Inc.

Free Nature Education

The School Service of the American Museum of
Natural History, New York

GEORGE H. SHERWOOD

Curator, Department of Public Education

PART I

MUSEUMS stand as pioneers in the subject of visual education.

Long before the advent of motion pictures, even long before the stereopticon and its forerunner, the magic lantern, made their appearance, museums were the great exponents of objective teaching. It is true that for many years they were passive or static agents of instruction, disseminating knowledge chiefly to the more or less casual visitor, and were less concerned with the imparting of information than with the preservation of records, scientific or historical. This viewpoint has passed away and the modern museum now stands as an aggressive force in education. This is particularly true of natural history museums.

Through improvements in the technique of preparation, through attractive and appealing labels, and through the development of the habitat group idea which shows the inter-relation and inter-dependence of all life, the exhibition halls of the up-to-date natural

history museum have become veritable magnets to which are drawn both young and old. Here begins the museum's first contribution to visual education. The attractiveness of the exhibition hall presentation reflects the arduous efforts of the explorer and field workers who have penetrated to remote corners of the earth to assemble facts, and the careful and painstaking studies of the curator who has co-ordinated the facts and drawn from them the proper deductions. This instruction, however, is somewhat casual and it is more through direct contact with school systems that museums have become entitled to consideration as important factors in education.

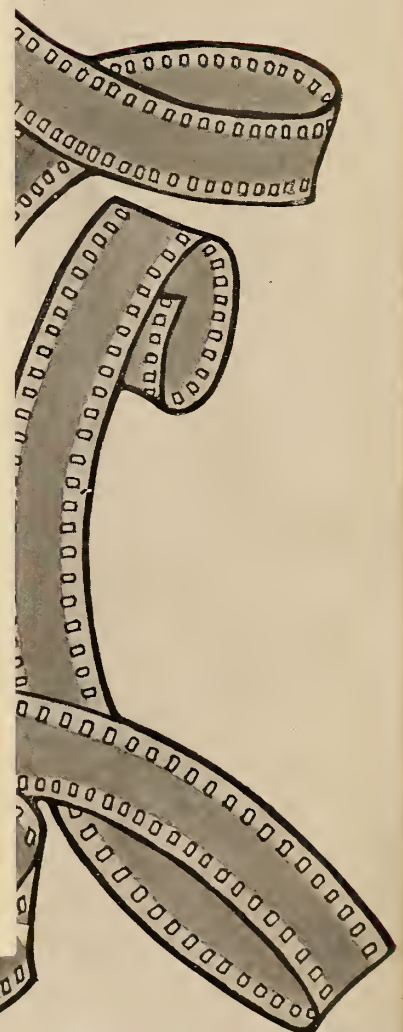
Early Teaching Methods of the American Museum

The American Museum of Natural History, from its inception in 1869, has taken an active part in educational affairs. The incorporators of the institution had in mind close contact with the schools, and its first Curator of Ed-



"BIRDS THAT ARE OUR FRIENDS"

One of the new "Habitat Group" circulating nature-study collections. The label-holders are hinged to the back of the case and close over the ends, protecting the glass during transportation. The label at the left is general and gives reasons why birds are our friends. That on the right deals with the habits and use of the specific birds in the case, each bird being identified by a simple drawing instead of by title or number.



ucation, Professor Albert S. Bickmore, may be regarded as the father of visual instruction. Throughout the period of his curatorship, 1881-1904, he was an enthusiastic believer in the teaching value of lantern slides, and through his lectures to the teachers of the state his reputation became national.

When he took hold of this work, the technique of making lantern slides was in its infancy; simple projection machines had not yet been developed. Professor Bickmore ransacked the corners of the earth for the best material. There was not a traveler of note who came to New York whom he did not seek out and ask for his negatives. He himself journeyed to remote lands to obtain first-hand information, and in later years often sent out special photographers in order to obtain the best results possible. One of the greatest contributions which the American Museum has made to visual education is this work of Professor Bickmore. Even today, notwithstanding the great advance in photography, the excellence of a "Bickmore slide" is seldom if ever surpassed.

Present Policy in Visual Education

During Professor Bickmore's curatorship the Museum's relations to the schools consisted chiefly of instruction to teachers. In 1904 a new policy—namely, instruction for children—was inaugurated. This policy, under the presidency of Professor Henry Fairfield Osborn, a lifelong student of educational methods, prevails at the present time. As the city annually contributes generously to the maintenance of the Museum, it is proper that the Museum should give special attention

to the needs of the schools of New York City. Thus the methods of instruction which have been developed by the American Museum during the past eighteen years are designed to meet the conditions of the New York City school system. They are, however, based on such fundamental pedagogical principles that they may easily be modified to apply to any school system.

Nature of Museum's School Service

The school service of the American Museum of Natural History includes the circulation of nature-study collections in the schools, illustrated lectures for school children at the Museum and in the schools, the lending of lantern slides to teachers, guide service and exhibition hall instruction for visiting classes, instruction for the blind, special exhibitions in public libraries, and the preparation of aids for particular needs of teachers; for example, in art and domestic science classes, and in training schools for teachers.

The Museum's program of school service has the hearty endorsement of the Board of Education, superintendents and other school officials, but the conduct of the work is left entirely to the Department of Public Education of the Museum, which is responsible for the relation with the schools. This action on the part of the school authorities has been an important factor in the success of the work, because it has simplified service and because it brings the Museum's staff into direct contact with the principals and teachers, thus leading to a better understanding of their needs.

While the Department of Public Education is the agent of the Museum in

its contact with the schools, the Department is in large measure dependent upon the other scientific departments for the wealth of nature material which it can offer to the schools. The Museum explorations bring together rare and valuable collections; the researches based on this material and the published results represent the work of the respective scientific departments. It is the function of the Department of Public Education to digest this material and to select and present such portions of it as will be useful to teachers and pupils.

Circulating Nature-Study Collections

The oldest feature of the Museum's Free Nature Education, and the most extensive, is the Circulation of Nature Study Collections. This work was begun in 1904. The collections are of small size, each being contained in a wooden carrying case which is about the size of a large suitcase. The material comprises representative specimens of mammals, birds, insects, lower invertebrates, minerals, woods, and public health charts and exhibits. The purpose of these collections is to place in the hands of teachers good nature material for classroom instruction, and at the same time to give authoritative data in regard to it. Originally the collections contained, so far as practicable, the specimens which were prescribed for study in a syllabus of nature study issued by the Board of Education. To meet changes in the curriculum it has been necessary to modify from time to time the character or contents of some of the collections or to add new ones to the series.

The general make-up of the various

collections is similar. Take the "Blue-bird Set" of birds as an example. This collection consists of five birds—blue-bird, phoebe, barn swallow, house wren and chimney swift. (Incidentally, this series has an added interest as it shows five birds whose nesting habits have been modified by contact with man.) Each bird is mounted on a separate pedestal and is easily removable from the carrying case. An individual label is attached, giving a few facts concern-



A "CITY" OF STRANGE BIRDS

Some of the brightest spots in childhood are connected with a vague realization of the beauty and mystery of the world.

TION

s • 100 a Year

THIS ISSUE: *Playing the Health Game*

ing it. The collection as a whole is accompanied by a manuscript describing the principal habits of these birds, their relation to one another and especially to man, their structure—that is, bill, feet, wings—their songs, their nesting and feeding habits. Reference is made to the local bird collection in the Museum, which is changed every month to correspond with the bird life of our city parks, and in conclusion a brief bibliography of popular books on the subject is given for school reading. The manuscript is prepared by or under the advice of the Curator of Birds, and the data is intended more as a suggestion to teachers than as an extensive account of the habits of these birds. This scheme has been followed with most of the collections, although some modification has been necessary in certain subjects.


Date _____ 191__

To the Curator, Department of Public Education
American Museum of Natural History

Dear Sir: Kindly deliver the Circulating Collections to my school in the sequence I have indicated below.

Principal,

<p><i>School</i></p> <p>Native Birds. Owl Set, Robin Set.</p> <p>Mollusks.</p> <p>Crabs.</p> <p>Sponges and Corals.</p> <p>Public Health Folios</p>	<p><i>Borough</i></p> <p>Native Woods. Tanager Set.</p> <p>Insects.</p> <p>Economic Insects.</p> <p>Small Mammals.</p> <p>Spread and Prevention of Communicable Disease, Insects and Disease, Bacteria and their Work in the World.</p>	<p>Blue Jay Set.</p> <p>Bluebird Set.</p> <p>Special Insects.</p> <p>Starfishes and Worms.</p> <p>Minerals and Rocks.</p>
--	---	--



THIS SIDE OF CARD IS FOR ADDRESS

Principal

Public School No. _____

THE ORDER POSTCARD

Requisitioning the service has been simplified to the nth degree. All that a principal needs to do to obtain the collections is to indicate by numerals the sequence in which he wants them delivered.

Method of Distributing Collections

The method of obtaining these collections has been made the simplest possible so far as teachers are concerned. At least once a year (in September), and sometimes twice a year, a return postal card is mailed to the principal of every school in Greater New York. On the return card is printed a list of the circulating collections. All that a principal has to do to obtain the collections is to indicate by numerals the sequence in which he wants the collections delivered, signing his name and school number. When the card is received at the Museum the requested deliveries are entered on our records, and no further effort on the part of principal or teacher is necessary. Museum messengers deliver the collections in the desired sequence and call for them at the end of the loan periods; that is, every three weeks. To make these deliveries the Museum employs three messengers and maintains two automobiles and a motorcycle side-car. Any school in Greater New York is served, and not infrequently the motorcycle covers 150 miles in a day. The entire cost of this service is borne by the Museum.

Circulating Food Exhibit

From time to time new collections are added to the series. The Circulating Food Exhibit which has been in use for about a year is an example of a special exhibit to meet a particular need. The proper nourishment of children is an important and vital problem, especially in New York City. Calories and figures mean little or nothing to either parents or children. Both can understand relative food values if they have placed before them objects show-

ing correct portions for a proper diet. To aid domestic science teachers, the Department of Public Education, in conjunction with the Museum's Department of Public Health, prepared an exhibit showing the proper daily food for a child. This consisted of attractive models or samples of food including—

value in the New York Training School for Teachers. Several others are in preparation and still others are projected.

These new collections, for which special cases have been designed, are intended mainly to supplement the earlier collections, not to replace them. As will be seen from the illustration

Breakfast	Luncheon	Dinner
Baked Apple	Cream of Tomato Soup	Lamb Stew
Oatmeal with Milk	Whole Wheat Bread and Butter	Potato
2 Slices Buttered Toast	Stewed Prunes	Spinach
Glass of Milk	Cookies	Glass of Milk
	Cup of Cocoa	White Bread and Butter
		Rice Pudding

neatly packed in a small carrying case and so arranged that they can be quickly assembled to show the proper food and right portion for the breakfast, luncheon and dinner of a normal, healthy child. The food value of each portion is clearly indicated and the exhibit is further explained by a series of illustrated wall charts giving dietary facts and figures. A leaflet setting forth the fundamental principles of the diet accompanies each collection.

This is practical visual education carried into the home, as well as the school, because this exhibit is often requested for Parents' Association meetings.

Habitat Group Collections

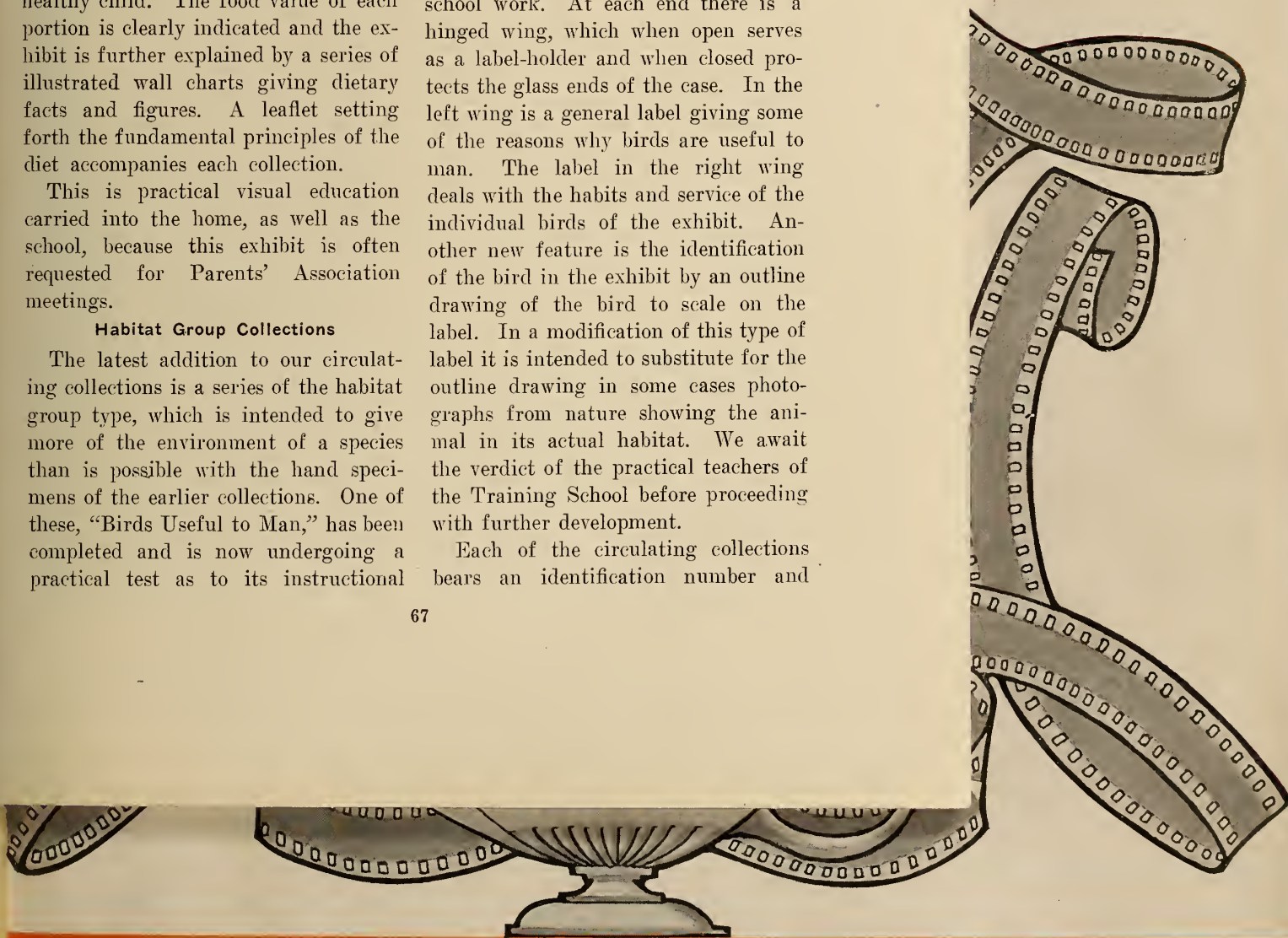
The latest addition to our circulating collections is a series of the habitat group type, which is intended to give more of the environment of a species than is possible with the hand specimens of the earlier collections. One of these, "Birds Useful to Man," has been completed and is now undergoing a practical test as to its instructional

value in the New York Training School for Teachers. Several others are in preparation and still others are projected. These new collections, for which special cases have been designed, are intended mainly to supplement the earlier collections, not to replace them. As will be seen from the illustration on page 63, this exhibit has a painted background, suggestive of habitat. The cabinet was modified from the type of case in use by the Field Museum of Natural History of Chicago in its school work. At each end there is a hinged wing, which when open serves as a label-holder and when closed protects the glass ends of the case. In the left wing is a general label giving some of the reasons why birds are useful to man. The label in the right wing deals with the habits and service of the individual birds of the exhibit. Another new feature is the identification of the bird in the exhibit by an outline drawing of the bird to scale on the label. In a modification of this type of label it is intended to substitute for the outline drawing in some cases photographs from nature showing the animal in its actual habitat. We await the verdict of the practical teachers of the Training School before proceeding with further development.

Each of the circulating collections bears an identification number and

TION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*



A NATURE-STUDY COLLECTION—THE BLUEJAY SET

The specimens are delivered to the school in a wooden carrying case about the size of an ordinary suitcase. The birds are mounted on individual pedestals and can easily be removed from the case. Thus the specimens may be used singly or collectively. They can be handled and seen from all sides.

title. On the reverse side of the card, which is carried in an appropriate label-holder on each cabinet, is a form for recording the itinerary of each collection, the number of pupils using it, and the signature of the teacher furnishing the data. The extent of this branch of the Museum's School Service is indicated by the comparative statistics of the last four years:

tical we would not have so many busy teachers beseeching us for this material. We learn from the teachers that not only have the collections proved their value in teaching facts about nature, but that they have been particularly useful in language work, especially with foreign-born children.

Perhaps their greater service, however, is giving these city children a

	1918	1919	1920	1921
Number of Collections in Use.....	629	668	887	869
Number of Schools in Greater New York Supplied	419	385	448	477
Number of Pupils Studying Collections.....	790,346	860,992	1,176,055	1,247,515

Use of Nature-Study Collections

To the question, Is this method of visual instruction worth-while, the foregoing statistics are in themselves a sufficient answer. Certainly, if these nature-study collections were not prac-

glimpse of the great out-of-doors. The country-dweller has very little conception of the limited horizon of thousands of these children in the congested parts of the city. Many of them never get more than a few blocks from the place



THE CIRCULATING NATURE-STUDY COLLECTIONS

Here are shown a few samples of the nature-study collections which the Museum sends free to any public school in Greater New York. Three messengers, two automobiles and one motorcycle are continuously employed in this service. In all there are 869 of such collections available for use. In 1921, 477 schools were regularly supplied, and the collections were studied by 1,300,000 pupils.

where they were born. The school building is the limit of their travels. The dog, the cat and perhaps the horse are the only animals they have ever seen. The vegetable market window or push-cart represents their knowledge of flowers. No wonder, then, that the little nature-study exhibits from the Museum stimulate their imagination and broaden their outlook!

In one instance one of our bird collections was used as a basis for letter-writing. It was evident that the teacher had suggested the general theme—a letter of thanks to the Museum for sending the beautiful birds, which were liked because of their pretty colors. The most suggestive and pathetic of the letters read something like this:

"I thank you very much for sending

to our school the beautiful birds. I think the robin is pretty because he has a red breast and the bluebird because of his blue coat, but the one I like best is the English sparrow, because it is the only bird I have ever seen."

What would this little girl think if she could make a trip into the real country?

Another illustration showing restricted environment:

The class was reading a poem dealing with the "signs of spring," such as daffodils, frogs, etc. The children did not comprehend the meaning of the words. Finally the teacher asked how we knew that spring was here. Johnny was the only one who raised his hand. "Well, Johnny, how do you know that spring is here?" "Because I saw them

(Continued on page 117)

TION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

Suggestions for Using Visual Methods in Teaching Hygiene

F. M. GREGG

Department of Psychology, Nebraska Wesleyan University

(Copyright February, 1922, by F. M. Gregg)

IN the pioneer days of the teaching of "fizzology" (properly so called because it was mainly "fizz"), few if any teachers really made "the stuff" go over. The reason is plain enough now. Johannes Mueller, one of the fathers of modern psychology, long ago observed that "there is nothing in the mind that was not first in the senses." Small wonder that the examination papers of yesterday and even of today in the subject of physiology and hygiene are rich in such "gems of literature" as the following:

"Fumigation is purifying the blood."

"Mastication is the beating of the heart."

"The pericardium is something that will put you to sleep."

"An epidemic is something you give for contagious diseases."

"The organs of respiration are expiration and inspiration."

To escape the natural consequences of the failure to give the sense-experience necessary to the adequate interpretation of the printed page, and to avoid ultimate impeachment for utter professional fatuity, teachers of physiology and hygiene have gone to the other extreme of calling for textbooks that resort to myth, fancy, romance, fairy story, and emasculated and saccharized science, in order to satisfy the law requiring the teaching of physiology in the public schools. More than

a dozen such sets of books are on the market.

Logical Use of Visual Method

Meantime, we have sent off an army to lend its assistance in keeping the world safe for democracy, only to discover that nearly one-third of the men who have come out of democracy's schools were physically unfit, in the very prime of life, to meet the world's most frightful foe.

Surely, there is some better way of presenting the most vital of all public school subjects. Such a way it is the purpose of this article, based on ten years of experimentation, to set forth.

If the exclusively bookish method gets us nowhere, what better thing can we do next than to resort to the method by which the childhood of the race has obtained its real education in all ages and climes; namely, the nature-study or visual education method? Textbooks will still have a place, but only after every major and minor topic has been properly introduced by an experience-giving observation or experiment.

The following excerpt from a forthcoming book by the writer will help to make the method clearer. It is intended as a lesson for fifth- or sixth-grade pupils on "Caring for the Skin."

Some Studies of the Skin

1. *Seeing the skin under a magnifying glass.* If you have a chance to

use a simple microscope or a reading glass, make an examination of the skin of the hand to see how scaly it looks. It is a great sight, as you will agree when you see it. When the back or the palm of the hand is sweaty, take a knife and scrape off some of the scurf. Where does skin scurf come from, and why can you never be entirely free from it?

2. *Why the skin smells bad.* Recall the smell of decaying meat; that is, of a dead cat, rat, or other decomposing animal.

A. What do you think makes the human skin smell bad at times?

B. Why does clothing, especially that worn near the skin, sooner or later get to smelling bad?

C. What is better than perfume to kill odors?

3. *Why should you wash and bathe frequently?* Some time when your hands are not very clean, wash them in plain water, doing the best you can. Smell the hands to see if there is any odor. Now wash them again right



"SEEING" THE SKIN WITH THE AID OF A MAGNIFYING GLASS

away, using unscented soap and warm water.

A. Why do the hands smell better after they have been washed with plain soap and water?

B. Although some folks say that we bathe to "open the pores of the skin," what is the real reason for bathing your body?

C. How often do you think you ought to bathe?



TURNING THE DAILY BATH INTO PLAY

ATION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

4. *Soap and oil in water.* Put a few drops of oil on some water in a small bottle and shake thoroughly. Take a similar bottle and in it put very soapy water, then some drops of oil, and shake vigorously. How does the oil in the soapy water differ from the oil in the plain water after both have been shaken?

5. *Avoiding poisoning from handling ivy.* Poison ivy is a three-leaved plant whose leaves and stems give off a volatile oil. Why should one wash with soap (Castile is said to be best) just after being in contact with poison ivy?

Ventilating for the Skin's Sake

1. *Seeing the sweat pores.* Look once more through the simple magni-

fier at the skin of the hand, this time examining the palm. Notice the little ridges. Now look very sharply for tiny little depressions along the top of the ridges. These can be more readily made out if you are sweating a little, so that very tiny drops of perspiration will show up as shiny spots at each depression. This is because these are the outlets of the sweat pores of the skin. Similar depressions can be found all over the skin, but they are not so easily made out elsewhere. In your notebook draw a magnified picture of one of the tiny ridges on the palm of your hand, showing the spots where the sweat comes out.

2. *Insensible perspiration.* You know that moisture stands out over the skin when you are quite warm. But on colder days you are not so certain about the presence of moisture. To find out about it, you need a day or a place where the temperature is down to 50 degrees Fahrenheit. In such a temperature put your hand into a glass quart fruit jar, not allowing the skin to touch the jar, and stopping up the unoccupied part of the mouth of the jar with a handkerchief. Thrust a thermometer tube (a dairy thermometer is excellent) into the jar without letting it touch the skin. Note that the temperature on the inside is still only about ten degrees warmer than that on the outside. To be sure of the conclusion of your experiment, have at hand another glass fruit jar that has its



A COLD-WEATHER PERSPIRATION EXPERIMENT

lid on. After ten minutes examine the inner surfaces of both jars. What proof is there that a hand in a Mason jar may still perspire, even when the temperature on the inside of the jar is as low as 60° F?

3. *Effect of volatile liquids on the skin.* Your teacher will pour a few drops of ether or alcohol or gasoline on the palm of your hand. Pay no attention to the odor, but notice only whether the hand feels cold as the liquid quickly evaporates from the skin.

A. When a little ether, or alcohol, or gasoline, has been poured on your hand, when does your hand quit feeling cold?

B. What does the word "volatile" mean?

4. *Effect of evaporation on temperature.* Insert the lower end of a dairy thermometer into a small bottle of ether or alcohol or gasoline, and note the temperature of the liquid. Now remove the thermometer and watch the movement of the mercury column as the liquid evaporates from the thermometer, and afterward.

A. As the liquid was evaporating from the bulb of the thermometer, what was the effect on the temperature of the thermometer?

B. Why did the liquid from Experiment 3 make your hand so cold?

C. Why was not the liquid you put on your hand in Experiment 3 as cold in itself as it seemed to be when poured into your hand?

D. What is the effect of rapid evaporation on the temperature of things?

E. Since you sweat most when you are in a warm place or when you have become warm through exercise, why do you think nature makes you sweat?

5. *Effect on evaporation of air in motion.* Take two saucers, or other shallow vessels, put two or three drops of water in each, and keep them in a moderately warm room. Fan one of them so as to keep the air in motion over it, and notice the number of minutes it takes the water in each vessel to evaporate.

A. How many minutes did it take for the water to dry up in still air?

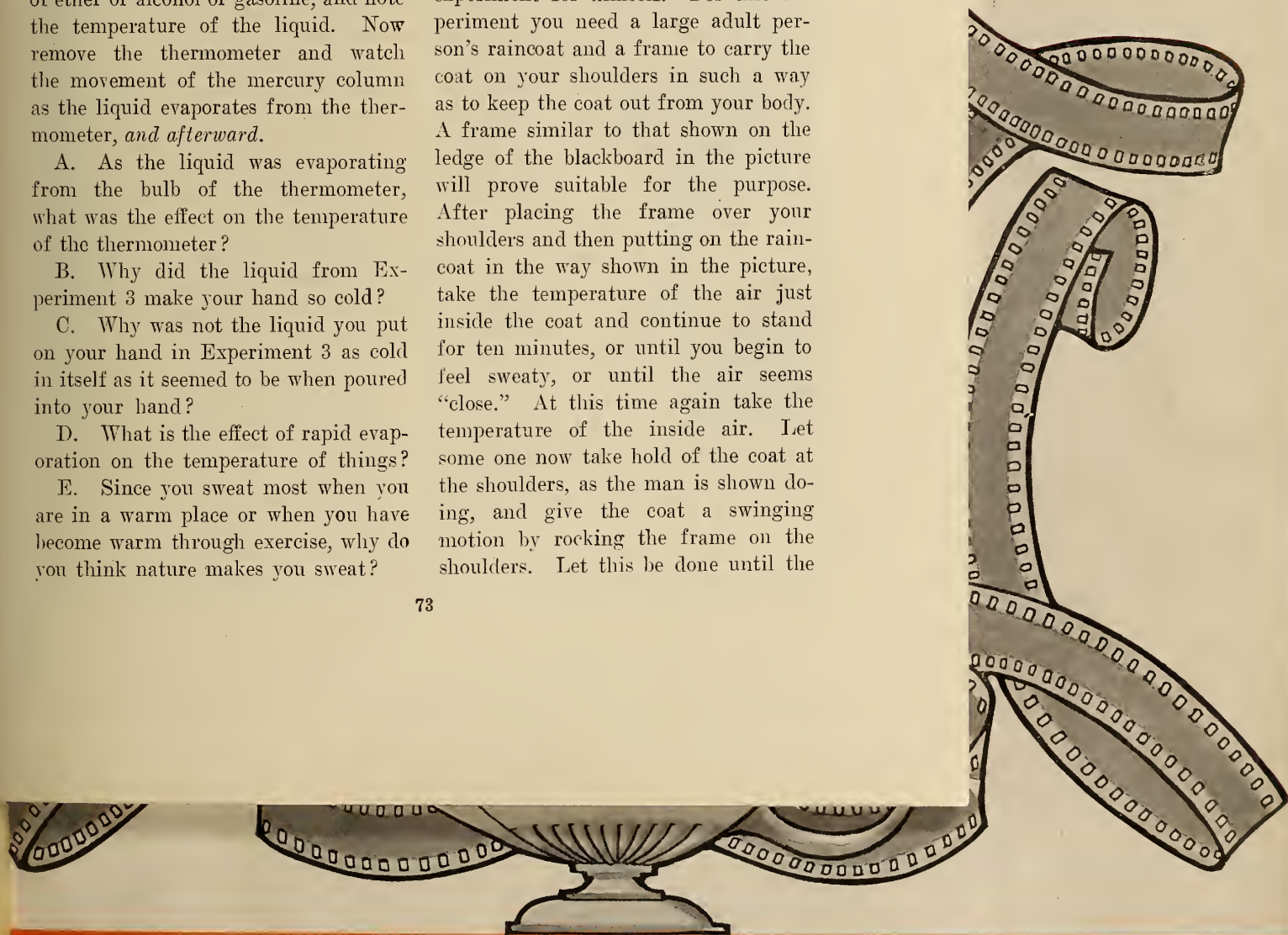
B. How many minutes did it take for the water to dry up in moving air?

C. What have you learned about the effect of moving air on evaporation?

6. *Effect of motionless air on skin temperature.* You will now have a chance to find out if it is true that the skin of the body needs to have fresh air just as much as the lungs do. Every pupil in the class will need to try the experiment for himself. For this experiment you need a large adult person's raincoat and a frame to carry the coat on your shoulders in such a way as to keep the coat out from your body. A frame similar to that shown on the ledge of the blackboard in the picture will prove suitable for the purpose. After placing the frame over your shoulders and then putting on the raincoat in the way shown in the picture, take the temperature of the air just inside the coat and continue to stand for ten minutes, or until you begin to feel sweaty, or until the air seems "close." At this time again take the temperature of the inside air. Let some one now take hold of the coat at the shoulders, as the man is shown doing, and give the coat a swinging motion by rocking the frame on the shoulders. Let this be done until the

TION

s • 100 a Year



air is well stirred inside. Take the temperature once more.

A. What was the thermometer reading—

- a. At the beginning of the experiment?
- b. At the end of the standing still?
- c. After the air had been set in motion?

B. When you had the raincoat on, how much cooler did you feel while the coat was swinging?

C. Recalling the results of Experiment 5, what do you think made the difference in the way you felt when the air on the inside of the coat was stirred?

D. How do you account for the fact that you really felt much cooler than

the thermometer seemed to show that the air itself had been cooled?

E. What is the primary reason for ventilating a room?

7. *The skin a source of odors.* Let the one who is working with you, in removing the raincoat, be sure to unbutton it at the top only and slowly lift it up over your head, so as to give you a chance to smell the air that has been inside the coat.

A. What makes the air of a crowded room smell bad?

B. What is a second very important reason for supplying an inhabited room with fresh air?

C. If everybody were to keep perfectly clean and the temperature were not high, would it be as necessary as it now is to ventilate the average living room?

General Questions on the Experiments

1. Why do some people smell less wholesome than others?

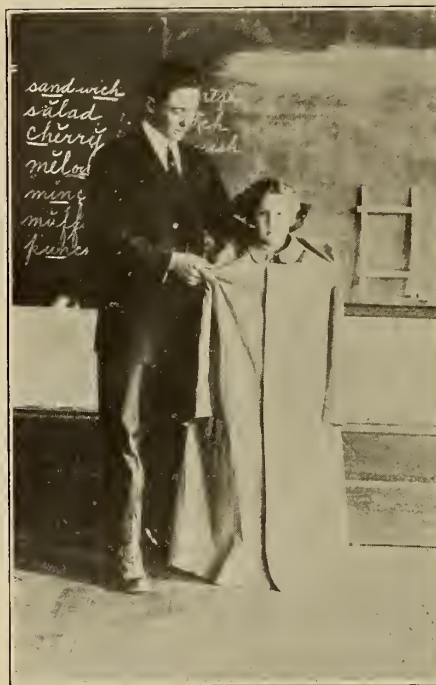
2. Why does a Sunday morning church audience usually smell less offensive than a week-day audience does?

3. Besides being the seat of sensation, what are two other important uses of the skin?

4. People have long been saying that we sweat "to throw off waste matter." Since we now know it is not quite true that we sweat to throw off waste matter, what shall we say is the *real* reason we perspire?

5. A Nebraska farmer and his hired hands take a shower bath and put on clean overalls just after the day's work is over and before going in to supper. What do you think of this way of doing; namely, cleaning up before the evening meal?

(Continued on page 120)



AN EXPERIMENT FOR DEMONSTRATING
THE EFFECT OF MOTIONLESS AIR ON
SKIN TEMPERATURE

The A-B-C of Using a Stereopticon in the Classroom¹

DUDLEY GRANT HAYS

Director of Visual Instruction, Chicago Public Schools

PART III

IT is to be regretted that so little has been done to train teachers in the necessary use of visual instruction equipment. To be sure, teachers have been shown how to use photographs, magazine pictures, maps, charts and the blackboard; but the most effective helps—stereoscopes, lanterns and motion-picture projectors—have not had even a conventional introduction, to say nothing of a familiar acquaintance in the school. Some good reasons have stood in the way. Arc lights were difficult of manipulation by the rank-and-file of teachers, so that there was only an occasional use of the lantern and that, generally, for an entertainment of the entire school in the assembly hall.

The somewhat recent development of Mazda lamp equipment for stereopticons, and the more intensive study of slide production to meet the needs of classroom instruction, have brought about a rapid change in visual methods. The field of action is now where it should be—in the classroom, not the distant auditorium.

Totally Dark Room Not Essential

In a couple of minutes the teacher or one of her pupils can attach and put into operation the classroom projector. With these modern lanterns, it is not

necessary to have the windows so darkened that no light can enter. Simply draw down the ordinary window shades, which will still leave the room sufficiently lighted to permit pupils to write such notes as they may wish while the pictures are projected on the screen. It is no longer necessary to follow the old practice of having the room in total darkness.

A Tip Regarding the Screen

Nor is it true that a large silver-covered screen is absolutely essential. An ordinary wall map, turned with the back or white side to the front, will serve for the screen. Any white surface—even the wall itself—will do if nothing better is available. It is always helpful, with any type of screen, to hang a dark cloth or a coat next to the screen on the side toward the windows, so that no side light will shine across the picture.

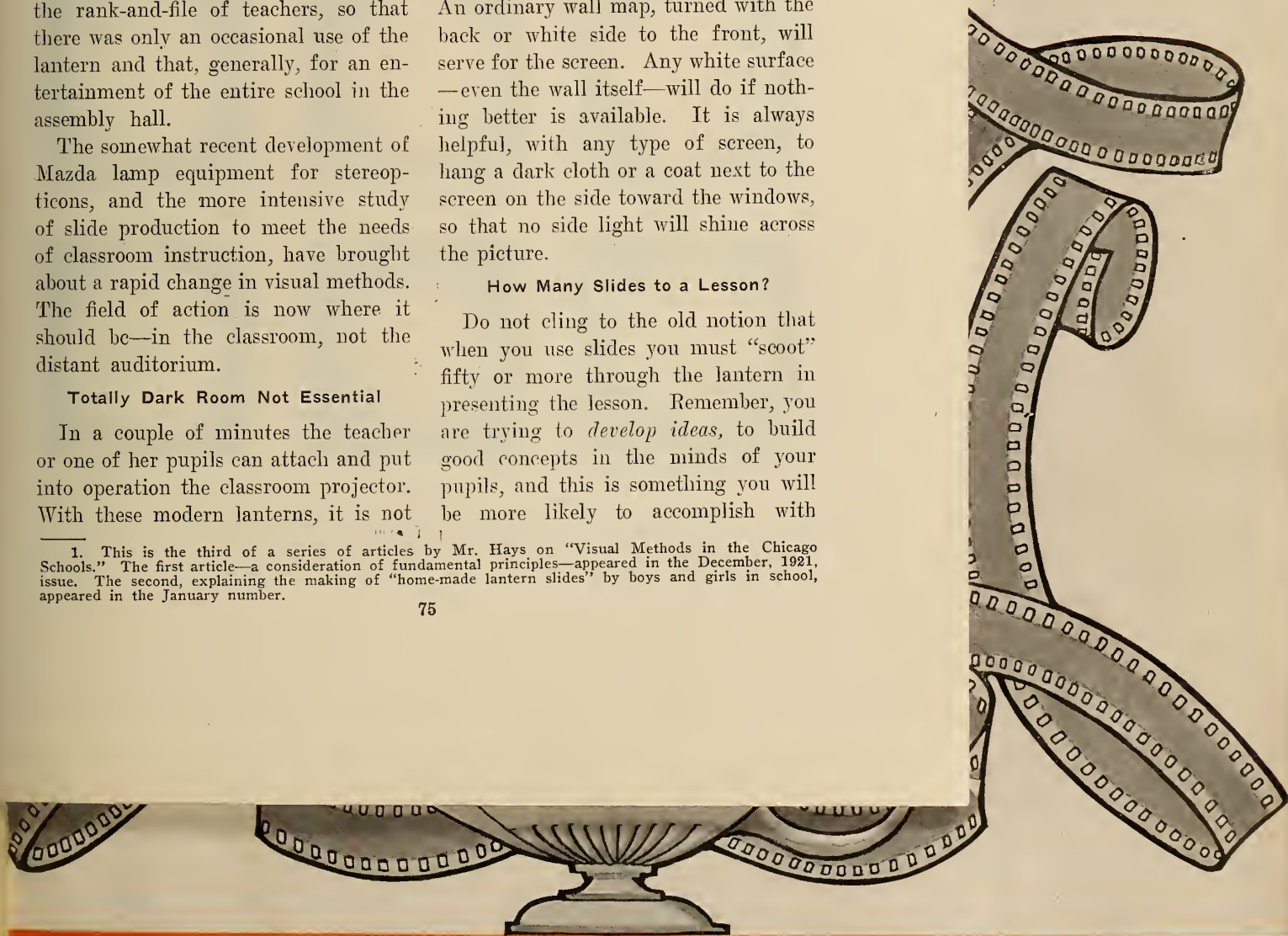
How Many Slides to a Lesson?

Do not cling to the old notion that when you use slides you must "scoot" fifty or more through the lantern in presenting the lesson. Remember, you are trying to *develop ideas*, to build good concepts in the minds of your pupils, and this is something you will be more likely to accomplish with

1. This is the third of a series of articles by Mr. Hays on "Visual Methods in the Chicago Schools." The first article—a consideration of fundamental principles—appeared in the December, 1921, issue. The second, explaining the making of "home-made lantern slides" by boys and girls in school, appeared in the January number.

ATION

s • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

sometimes only one or two slides than with a dozen.

Of course, if you are giving a general pre-view of a subject as you enter upon its study, or a review following its study in class, you may wish to use a number of slides—but not otherwise. One or two slides may lead to clearness of ideas; many may lead to confusion. Use just enough to put over the idea of the lesson.

The slides you show may be those furnished by slide-making firms, or those made by your pupils or yourself. Sometimes one kind is better than the other for the purpose desired.

Placing and Adjusting the Lantern

The lantern would better be at the rear of the room and placed on a table high enough to project the picture over

the heads of the pupils. The nearer the lantern is to the screen, the smaller will be the picture; the farther away, the larger the picture.

You will also need to do some adjusting of the parts of the lantern to meet different conditions. In every type of lantern there are some parts that are fixed and some that are movable. You should make a study of your lantern, know just what is meant by house, lamp, lamp-socket and holder, and learn how to adjust these parts. The same thing is true with regard to the condensers, or large lenses just in front of the light, and the slide-holder just in front of and close against the condensers. The condensers and the slide-carrier have fixed positions. The lamp, however, can be moved up or



Fig. 1



Fig. 2



Fig. 3



Fig. 4

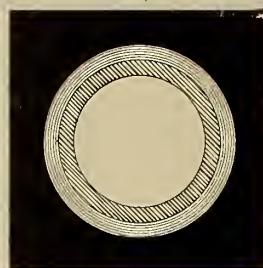


Fig. 5



Fig. 6

CHART ILLUSTRATING IMPROPER LAMP ADJUSTMENT

Figures 1 and 2 show the shadowy bands that appear on the screen when the lamp is too far to right or left. Figures 3 and 4 indicate that the light is too low or too high. Figures 5 and 6 tell you that the lamp is too close to the condensers or too far away from them. (See text for detailed explanation.)

down, twisted sideways, and moved forward or backward; but it should never be too close to the condensers, or the intense heat from the lamp may crack the large lenses.

Pointers on Focusing

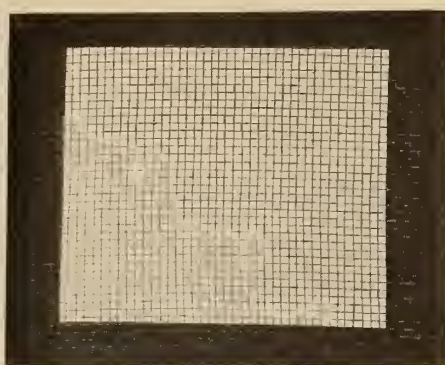
The front part of the lantern is generally a sort of extension box, so constructed that it can be pulled out or extended several inches. Fitted into the front end of this box is a lens called the objective. By moving the objective slowly out toward the screen, you will find just the position which will give a clear, sharp picture—provided always that you have the lamp behind the condensers so adjusted that the lamp filaments are flatwise (not edgewise) across the lantern and at such a height as to bring the middle of the filaments on a level with the middle of the condensers. You may need to do a little practicing just at first in order to acquire skill in making these adjustments. This adjusting work, of course, is what we mean by "focusing."

Practice in adjusting the distance to which the objective is moved out from the condensers will enable you to secure not only the most satisfactory size of picture, but also the maximum of clearness.

Eliminating "Color Bands" and "Fringes"

The distance of the light bulb from the large condensers produces varying effects on the screen.

If, for example, a shadowy band appears either at the right- or left-hand side of the field of light on the screen, it means that the light has been moved too far to the left or right, as the case may be. A little adjusting will show you when this shadowy band passes



A HOME-MADE "FOCUS TESTER"

A lantern slide made by framing fine wire screening between ordinary cover glasses. Such a slide affords a simple but highly efficient means of testing the focus before projecting pictures.

from one side to the other. In adjusting the light so that the color band moves either from the left-hand to the right-hand side of the field or vice-versa, stop the light in such a position that the color band disappears. It will then be centrally located, so far as right-and-left positions are concerned.

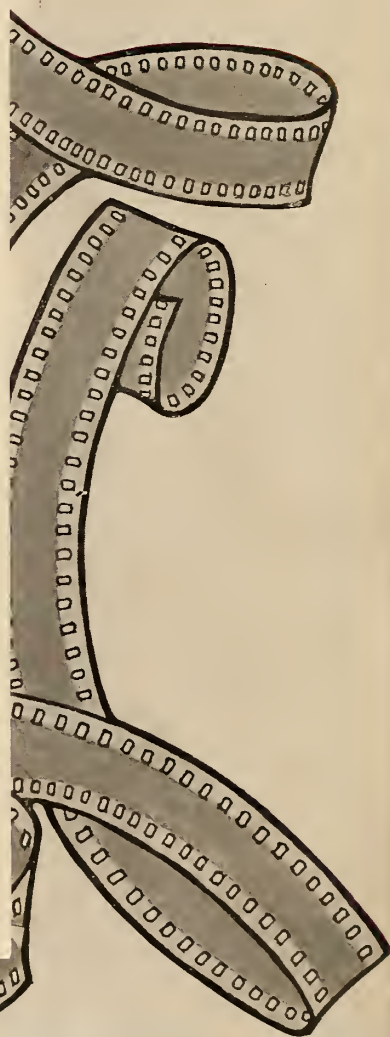
Sometimes a black band appears at the top or bottom of the field of light on the screen. These two variations indicate that the light is either too low or too high in its position behind the condensers. By adjusting the socket which holds the lamp so that you can move it up and down, you will cause these shadowy bands to move down or up, just as in the former case they moved from right to left. Being careful not to alter the right-and-left position, again adjust your light so that no band appears either at top or bottom. You should then have a clear white field, so far as right-and-left or up-and-down movements are concerned.

Two other things may happen: You may have the light too close to the

(Continued on page 115)

TION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

Teaching Agriculture by Chart and Film

EDGAR W. COOLEY

Agricultural Extension Department, International Harvester Company

NO community is one hundred per cent efficient. It may be lacking in production, or in health, or in education.

No more vital problem faces America today than that of building human efficiency, because the efficiency of a nation is the average efficiency of its individual citizens. It is a problem that calls for conscientious thought, for tireless efforts.

Service is a duty that no man or woman, no professional, financial or business organization, can escape. One of the first industrial concerns to recognize its obligations to the public was the International Harvester Company, which some nine years ago organized an Agricultural Extension De-

partment in order that it might discharge its duty in the most effective manner. The department is distinctly educational. It offers its services to help any community, but it will serve that community only in co-operation with the people themselves. Every community must work out its own problems, but the department will send its workers anywhere and do whatever it can to help in any movement that means a better community.

The Educational Extension Movement

There are many forces doing educational extension work in the United States. There is a nation-wide interest in this method of education. Never before has there been such a general demand for it. The people are deeply



EVEN THE DOG IS INTERESTED

An extension worker addressing a crowd of interested people from all walks of life in front of the postoffice in a small southern town. That the thirst for knowledge is universal is shown by the fact that these men, women and children stood in the hot sun for over an hour.

interested. They want it. Teachers are planning for it everywhere.

Educational extension is neither a fad nor a fashion. It is fundamental, practical, constructive. It is as old as history. Christ, the greatest of all teachers, went out among the people and taught in terms of their life's work. People are eager to learn of better ways to do their work. Men have been known to drive forty miles over country roads, bringing their families with them, to attend a gathering of their neighbors and discuss common problems. The interchange of ideas and experiences which takes place at these meetings is the highest form of educational extension.

Public need of anything is best indicated by public interest. It would be foolish to attempt educational extension work if the people did not want it. We can do no really effective extension work without, first, public interest and, second, the co-operation of the business agencies which play so important a part in the life and activi-

ties of the community. Short-course schools, farmers' institutes, chautauquas, fairs and demonstration trains all give ample evidence of the truth of this statement.

The principle of educational extension is as old as civilization, but the employment of highly organized methods in carrying on the work is of recent origin and development. In 1901 there was practically no organized extension work in the United States. Iowa was one of the first states to carry the school to the home. In 1910 twenty-five states took up extension work, and during that year \$500,000 was appropriated for the purpose. We now find it a part of the educational system of nearly every college.

An Obligation of Citizenship

Today there are few human activities that are not represented in educational extension. It has become a part of our physical, moral and economic life. It is not a one-man job, nor a one-institution job, nor a one-organization job. It is the job of all enlight-



COMMUNITY MEETING

Note that even the children are extremely interested in watching the speaker turn the chart. They are anxious to see what is on the next sheet.

ATION

s • 100 a Year



THIS ISSUE: *Playing the Health Game*

ened and progressive people who believe in health and happiness and peace and prosperity.

Educational extension is a public duty. It is an obligation of citizenship. It is the duty and the obligation alike of individuals, educational institutions and business organizations. Every man should be interested in building up his community and in making it a better place in which to live. While this does not necessarily require money, it does demand effort. Some people and a good many business concerns seem to think they are doing their whole duty to the community when they pay their taxes, but a town composed entirely of people who are content simply to pay taxes, collect rent and loan money never has developed and never will develop into a prosperous city.

Commercial Organizations as Educators

So it follows that today educational extension work is being done in one way or another by an increasing number of business organizations. Some of these organizations are influenced by a desire to reap some direct and immediate benefit, but most of them have that larger vision which extends beyond the narrow limits of self-interest. They have come to realize that it is the duty of every business organization to do something to help build up the community in which it does business, aside from just the things it is required to do by law or the things immediately beneficial to itself.

There has been considerable discussion as to whether business concerns should engage in educational work, especially organized extension work;

yet no one can deny that it is practical from the standpoint of good business, that it is right from the standpoint of humanity and good citizenship, or that it is right educationally, morally and economically.

The fact that the business world is being educated to the point of doing educational work, reflects great credit on our educational institutions.

We are told that scientific investigation is twenty-five years in advance of the practical *use* of its discoveries. The facts revealed by thousands of experiments that relate directly to improved agricultural and industrial methods and advanced social life, have not as yet been given the necessary practical development which would make them of service to humanity. The real value of the products of invention, the real worth of all these years of educational effort on the part of teacher, preacher, scientist and inventor, must receive the final practical test at the hands of the workman. That is why business is so keenly interested in education.

Extension Department Aims

To increase production, eliminate waste, improve living conditions in town and country, bring greater prosperity to the farmer, make housework easier for the farmer's wife, provide better schools for the farm boy and girl, and create within them love for the farm and greater interest in agriculture—these are the things to which the Agricultural Extension Department of the Harvester Company gives its entire attention. The department was organized, not with the intention of assuming the duties of any educational institution or organization doing sim-

THE VERDICT OF THE JURY THIS COW EQUAL TO 40 POOR ONES



**\$31.25 PROFIT
ONE YEAR**

GROUP HERE THE FARMER CAN NOTE THE COWS
AND DECIDE ON THE BEST COWS TO KEEP
THAT ONE BARRED COW CAME A FEE SHORT OF
BETTER IN YEARS A DAY
SHEEP BUCKLE CALLOW THE BARN WILL BRING
AND THE TO GET THE BEST AND THE MOST
ON THE INVESTMENT



**\$ 31 PROFIT ON
THESE 40 COWS
ONE WHOLE YEAR**

YOU CAN'T AFFORD TO GUESS

THE COW FIG.

5-D

THE VALUE OF A LECTURE CHART

After you have laid aside this copy of "Visual Education," notice how long the point brought out by this chart remains with you.

ilar work, but with sincere motives and in a spirit of helpfulness to every agency doing agricultural work.

The company has always made the work of the department co-operative, for it believes it can best serve the people by working with the people who want to do something for themselves.

It believes in the truth of the statement, "You cannot make a mathematician of a boy by working his problems for him."

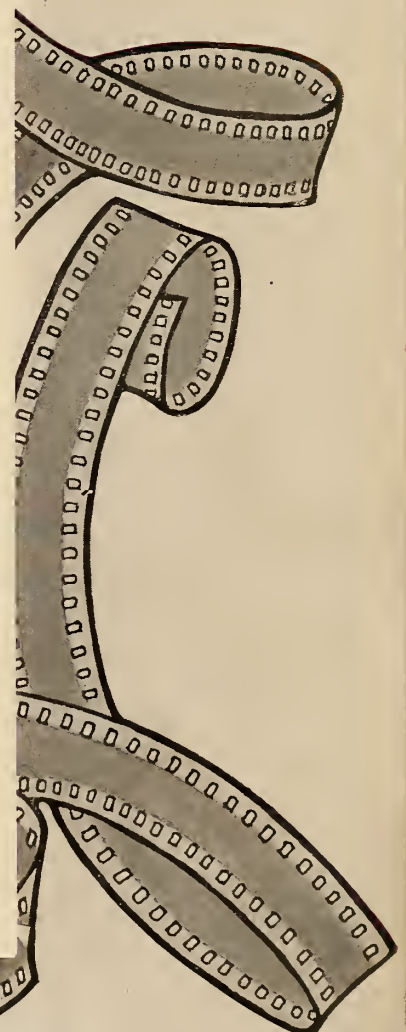
How the Department Works

The real prosperity of both town and country lies hidden in the fertility of the soil. Primarily, the purchasing power of the people is measured by the producing power of the farm. Campaigns for alfalfa, corn, wheat and hay, beef, pork and butter, will help to make the land worth more, build good homes, make good roads, and establish better schools.

(Continued on page 109)

ATION

s • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

“How We Secured Our School Projector”

IF any valuable adjunct to formal education ever found educators, pupils and parents all thoroughly agreed in its favor, it is the motion picture machine. No better proof of the value and popularity of the educational motion picture could be brought forward than evidence of the dauntless and infinite resourcefulness with which schools, clubs, classes and individual pupils have worked to procure the needed equipment. No combination of business depression, war taxation or general “hard times” appears to be a serious obstacle to prompt and resultful action.

The following list of schools which have in one way or another worked out the problem of procuring a projection machine and other equipment, compiled from items which came readily to hand, serves to illustrate the trite old saying, “Where there’s a will there’s a way.”

[The first installment of this list appeared in the January number.]

Monroeville, Indiana

The proposition of the Curtis Publishing Company, whereby it agreed to install motion picture apparatus in payment for 450 subscriptions to “The Country Gentleman,” was the means adopted by the school children to secure their motion-picture machine.

Mount Summit, Indiana

A projector fund was started with \$50 raised from the sale of advertising slides, and the machine itself earned the balance of its cost.

Neoga, Illinois

The high school put on a one-night carnival in the school gymnasium for the express purpose of raising funds for a motion-picture machine. They succeeded beyond their expectations, not only obtaining money for the projector but enough for a screen as well.

Nevada, Iowa

Turning every pupil into a pro tem subscription agent and letting commissions apply on the purchase of a moving picture machine, is the plan by which the little town of Nevada bought its school projector.

Newark, California

Three hundred dollars was supplied by the Woman’s Improvement Club in order

that the grammar school might have the advantage of visual education aids.

New Orleans, Louisiana

Six city schools are using motion pictures and at present each school is buying its own projector, generally with the help of the Parent-Teacher Association. The boys of one of the schools salvaged old newspapers and magazines.

Niles, Michigan

The senior class of the high school turned over their customary memorial fund to the school for the purchase of a projector. One picture entertainment each week provides funds for incidental expenses.

North Wales, Pennsylvania

The Alumni Association of the high school donated a \$350 motion-picture machine to the school.

Onawa, Iowa

Pupils raised money for a projector by selling season tickets for school programs.

Orient, Iowa

A “Booster Fund,” sufficient to defray half the cost of a school projector, was accumulated through various school enterprises. The remainder of the cost was contributed by the school board. Bertha M. Tyler, superintendent of the consolidated schools, is quoted as saying: “We

secured a projector and stereopticon to give us greater educational advantages in our schools, but the investment has also enabled us to serve the community in many ways. By running a 'pay movie' for the town one night a week, showing none but the very best pictures, our machine has more than paid for itself."

Oswego, Illinois

The first payment on the new school machine was made with funds derived from subscriptions secured by pupils for "The Country Gentleman" and from a donation from the Parent-Teacher Association. A series of public shows followed, the profits from which were applied on the last payment.

Park Ridge, Illinois

A generous donation of \$200 from the Park Ridge Improvement Association aided the school in the purchase of a motion-picture machine. A "Film Fund Party," given through the inspiration of a few of the ladies of the town, provided another fund of \$200 which was given to Superintendent Merrill to draw upon for film rentals.

Pasadena, California

The local school board contributed between \$200 and \$300 to the purchase of elaborate motion-picture equipment installed in the high school. Their two projection machines, booth, motor generator, stereopticon, screen, wiring and other equipment represent an investment of \$2,000, and this would have been a much larger amount had not the manual training students done much of the work under the direction of their teachers. The bulk of the total cost was raised from the five and ten-cent admission fees paid by the students.

Pendleton, Indiana

The schools of this town united in an entertainment from which they received half the proceeds to help pay for their projector.

Preble County, Ohio

The Monroe Township Consolidated Schools secured their projector and equipment at a total cost of \$850, by the sale

of stock subscriptions to patrons at \$10 each. The machine has been used for weekly shows since 1919.

Rochester, Indiana

Commissions on subscriptions to various magazines created the school children's fund from which a projector was purchased for the school.

Rockford, Illinois

The Wight School adopted a plan proposed by the "Rockford Morning Star" in order to obtain a projector. In return for a certain number of subscriptions, the newspaper agreed to supply an Acme projector and the school board appropriated a fund for two strictly educational films each week. The success of the Wight School led other Rockford schools to pursue the same plan.

The Consolidated Schools adopted another plan for buying their machine. They made a payment on a projector which can be used for both slides and films, and immediately put the machine to work to pay for itself under special arrangement with the Society for Visual Education whereby the films are supplied for this purpose free of charge. Mr. F. H. Turner of the Harlem Consolidated Schools is in charge of this plan, which will not only bring visual education into the schools but also supply excellent "movie" entertainment to the community.

San Antonio, Texas

Crockett School No. 11 had a fund of \$150 on hand. The Teachers' and Mothers' Club raised the remainder of the amount necessary to obtain a motion-picture machine. The women gave a tea which brought in \$70 and then took up subscriptions from patrons of the school to complete the amount desired.

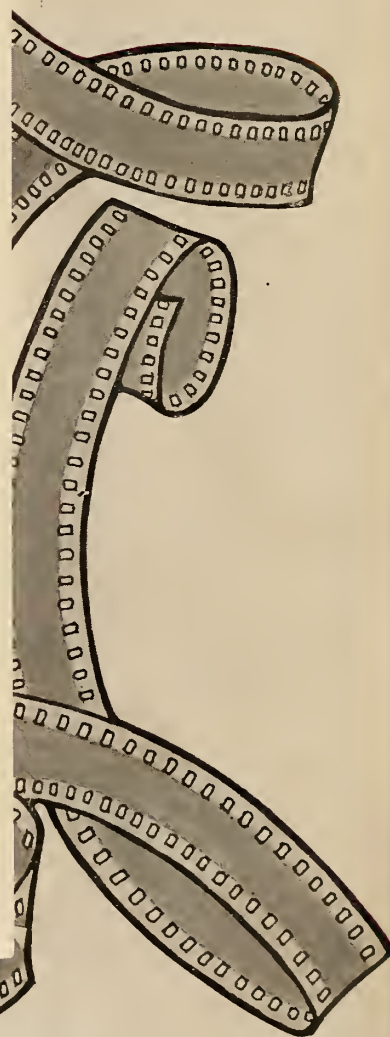
St. Joseph, Michigan

Here two churches and a school joined in the purchase of a projector, appointing a committee of three to transact the business and each paying one-third of the cost. The machine will be used for educational films, religious pictures and for general community purposes, and it is ex-

(Continued on page 114)

TION

s • 100 a Year



Program for the Annual Meeting of the Department of Superintendence and Other N. E. A. Departments*

Chicago, February 25-March 2, 1922

THE general plan of the program of the Department of Superintendence is designed to project a panorama of country-wide educational needs. The plan as proposed is general in character that it may, if desired, serve as a basis for detailed study of the issues regarded in administrative circles as fundamental and insistent upon solution.

1. What types of education does this country require?
2. What physical property will be necessary to insure its promotion?
3. What technique in education may be expected from our advanced curricula?
4. How much education can the country afford? How much more can we secure for our money through elimination of wasteful processes and organization?
5. What benefits shall accrue to the children of the United States through public education?

DEPARTMENT OF SUPERINTENDENCE

Monday, February 27

Morning—Auditorium Theater.

A. "The Outlook in Education." (a) for Cultural Education; (b) for Technical Education; (c) for Commercial Education.

B. Business meeting. Nominations of officers from the floor.

Afternoon—Gold Room, Congress Hotel.

Executive session as authorized at Atlantic City and Des Moines.

1. A constitution and by-laws will be submitted for consideration.
2. Official decision upon the financial policy of the Department.
3. A review will be made of all groups which may be considered for allied relationship with the Department; final decision to be made by vote of the Department.
4. Reports of committees.
5. Any or all business which may be proposed by members of the Department.

Evening—Auditorium Theater.

"A National Educational Policy," to be presented by an official representative of the Government at Washington.

Tuesday, February 28

Morning—Auditorium Theater.

"Building and Physical Equipment." Discussion in charge of Supt. Randall J. Condon, Cincinnati, Ohio, to be supplemented by visual program of plans, exteriors, details of equipment, and construction costs of the finest school buildings in the country and by an exhibit in a separate room.

*This program although the latest available at time of going to press, is announced as tentative in the current issue of THE JOURNAL OF THE N. E. A.

Wednesday, March 1

Morning—Auditorium Theater.

"Analytic Study of the Process of Financing Education on an Economic as Well as a Social Basis," in charge of Dr. Thomas E. Finegan, State Superintendent of Public Instruction, Harrisburg, Pa.

11:00 A. M.-6:00 P. M.

Ballot-boxes open for voting.

Noon—Elizabethan Room, Congress Hotel.

"A Study of the Advancement in the Technique of Education." Luncheon meeting in charge of Supt. J. W. Studebaker, Des Moines, Iowa.

Evening—Various hotels.

Regular college dinners. Informal inter-collegiate dinner at Hotel LaSalle under management of Supt. Frank Cody, Detroit, Mich.

Thursday, March 2

Morning—Auditorium Theater.

"The Ideals to Be Achieved by Public Education." Opening address by Dr. W. O. Thompson, President Ohio State University.

Final business session.

Afternoon—Round tables and meetings.

Superintendents of Cities under 25,000 — Red Room, Hotel LaSalle.

Superintendents of Cities 25,000 to 100,000 — Ball Room, Auditorium Hotel.

Superintendents of Cities 100,000 to 250,000 — Hotel Sherman.

Superintendents of Cities 250,000 to 450,000 — Pine Room, Stratford Hotel.

Superintendents of Cities over 450,000 — Green Room, Congress Hotel.

DEPARTMENT PROGRAMS

County Superintendents and Department of Rural Education—Florentine Room, Congress Hotel.

National Association of Secondary School Principals—Ball Room, Hotel LaSalle.

Department of Elementary School Principals—Cameo Room, Morrison Hotel.

National Association of Directors of Educational Research — Gold Room, Congress Hotel.

NATIONAL COUNCIL OF EDUCATION

(Four meetings will be held in the Tiger Room, Hotel Sherman)

Monday, February 27, 2:00 P. M.

"The Elimination of Educational Waste," Dr. H. H. Seerley, Cedar Falls, Ia.

"The Inverted Torch," Mrs. Josephine Corliss Preston, State Superintendent, Washington.

"Recent Educational Progress in the United States," Dr. J. J. Tigert, U. S. Commissioner of Education.

"The Hope and the Result of American Education," Miss Charl Ormond Williams, President N. E. A., Memphis, Tenn.

Semi-final report of the Committee on Rural Education—John F. Sims, chairman, Stevens Point, Wis.

Final report of the Committee on State Administration of Schools—C. P. Cary, chairman, Madison, Wis.

Preliminary report of the Committee on American Teachers' Colleges—Charles McKenny, Ypsilanti, Mich.

Business session.

Tuesday, February 28, 2:00 P. M.

"Great Educational Accomplishments," Supt. Robinson Godfrey Jones, President Department of Superintendence, Cleveland, Ohio.

"The Junior High School Program of Studies," James Glass, State Department, Harrisburg, Pa.

"Junior High School Buildings," J. H. Bentley, Duluth, Minn.

Sub-committee report on Re-organization

of Seventh, Eighth and Ninth Grades—Charles H. Judd, chairman, Chicago.

Semi-final report on Changes Needed in the Elementary School Courses—Miss Katherine D. Blake, chairman, New York City.

Report on Participation of Teachers in School Management — Harlan Updegraff, chairman, Philadelphia, Pa.

Tuesday, February 28, 8:00 P. M.

Business session.

"Health Problems in Education," Dr. Thomas D. Wood, chairman, New York City.

"The Teaching of Democracy," Dr. A. Duncan Yocum, chairman, Philadelphia, Pa.

Wednesday, March 1, 2:00 P. M.

Business session.

Fifteen-minute reports of progress of committees:

Vocational Education — Miss Adelaide Steele Baylor, Washington, D. C.

Adult Illiteracy—Mrs. Cora Wilson Stewart, Frankfort, Ky.

Teacher Welfare—J. W. Carr, Frankfort, Ky.

State Levies and Other State Funds—A. J. Matthews, Tempe, Ariz.

Educational Surveys—Dr. A. E. Winship, Boston, Mass.

Graduate Education—Walter A. Jessup, Iowa City, Ia.

Character Education—Milton Bennion, Salt Lake City, Utah.

The Continuity of Education—J. M. Gwinn, New Orleans, La.

NATIONAL COUNCIL OF STATE DEPARTMENTS OF EDUCATION

(Two meetings will be held in the Pine Room, Stratford Hotel)

Monday, February 27, 2:00 P. M.

General topic: "Organization and Control."

"The Function and Composition of a State Board of Education," George M. Ford, State Superintendent of Schools, West Virginia.

Discussion led by Miss Catherine L. Craig, Denver, Colo.

"The Methods of Selecting and Qualifications for County Superintendents," Thomas Johnson, State Superintendent of Schools, Michigan.

Discussion led by Miss Katherine Morton, Cheyenne, Wyo.

"What Can a State Department of Education Do To Acquaint the Public With the Conditions and Needs of the Schools?" Miss Annie Webb Blanton, State Superintendent of Schools, Texas.

Discussion led by John V. Conway, Santa Fe, N. Mex.

Address, Dr. J. J. Tigert, U. S. Commissioner of Education.

Brief talks by state superintendents.

Wednesday, March 1, 2:00 P. M.

General topic: "Organization and Control."

Address, Miss Charl O. Williams, President National Education Association.

"The Powers and Duties of Chief State Educational Officers," Will C. Wood, State Superintendent of Schools, California.

Discussion led by Dr. A. C. Thomas, State Superintendent of Schools, Maine.

"The State Superintendent and His Relation to Vocational Education," Ernest W. Butterfield, State Superintendent of Schools, New Hampshire.

Discussion led by Mrs. Josephine C. Preston, State Superintendent of Schools, Washington.

"Balance and Control in Educational Affairs Between State and Local Communities," Dr. Frank P. Graves, State Commissioner of Education, New York.

Discussion led by Miss Minnie J. Nielson, State Superintendent of Schools, North Dakota.

Roll call.

ATION

s • 1⁰⁰ a Year



VISUAL EDUCATION

DEPARTMENT OF RURAL EDUCATION

(Meetings will be held in the Florentine Room, Congress Hotel)

Monday, February 27, 2:00 P. M.

General topic: "Leadership and Achievement in Rural Education."

"Resources in Rural Education," President Ernest Burnham, Director of Rural Education, Normal School, Kalamazoo, Mich.

"Contributions of the American Country Life Association to Rural Education," E. C. Lindeman, State College, Greensboro, N. C.

"Leadership of the County Superintendent in Rural Education and Country Life," Miss Charl O. Williams, Superintendent of Shelby County Schools, Memphis, Tenn.

Preliminary business.

General reception.

Tuesday, February 28, 2:00 P. M.

General topic: "The Rural High School."

"The Objectives of Public Education in America," Thos. H. Briggs, Teachers' College, Columbia University, New York City.

"The Junior High School in Rural Communities," Clyde M. Hill, State Teachers' College, Springfield, Mo.

"The Small Community High School," E. M. Phillips, Inspector of High Schools, St. Paul, Minn.

"Problems and Methods in the Organization of Rural Community High Schools," F. P. O'Brien, University of Kansas, Lawrence, Kans.

Tuesday, February 28, 8:00 P. M.

(Moving pictures will illustrate each talk)

"Consolidated Schools of the Mountains, Valleys and Plains of Colorado," C. G. Sargent, College of Agriculture, Fort Collins, Colo.

"The Chazy Rural Education Palace," Miss Mary E. Sabin, Principal, Chazy Consolidated Schools, Chazy, N. Y.

"A Rural Teachers' Plattsburg," Dr. A. O. Thomas, State Superintendent of Schools, Maine.

Wednesday, March 1, 2:00 P. M.

Five section meetings:

Section I—State Supervisors and Inspectors of Rural Schools.

General topic: "The Improvement of Teachers in Service," (a) "Through Teachers' Institutes," Georgina Lommen, University of Minnesota, Minneapolis; (b) "Through Supervision," May Trumper, State Superintendent of Schools, Montana.

"County Educational Campaigns," Josie Henderson, Extension Division, University of Kansas.

"A Constructive Yearly Program for the State Rural Supervisor," John M. Foote, Department of Education, Baton Rouge, La.

Section II—County Superintendents and Rural School Supervisors.

"The Use of Tests and Measurements in Rural Schools," L. J. Bennett, Superintendent Miami County, Ohio.

"Real Supervision for Rural Schools," J. S. Hoffman, Superintendent Hunterdon County, New Jersey.

"The Curse and Cure of the County Superintendency," Miss Ellen B. McDonald, Oconto, Wis.

"The County Unit Plan of High School Consolidation," A. F. Harman, Superintendent Montgomery County, Alabama.

Report of the Section Committee, Miss Fannie W. Dunn, Teachers' College, Columbia University, New York City.

Business meeting.

Section III—Rural Normal Directors.

"The Output of Normal School Graduates Entering the Field of Rural Teaching," Charles E. Benson, State Teachers' College, Cape Girardeau, Mo.

Report of Section Committee on the Preparation of Rural School Teachers.

"Findings and Recommendations of the New York Rural School Survey on the Status and Preparation of Rural Teachers," Dr. W. C. Bagley, Teachers' College, Columbia University, New York City.

"Content and Character of the Course in Rural Sociology for Rural Normal Students," Harold W. Foght, Normal School, Aberdeen, S. Dak.

Section IV—Vocational Directors and Rural Extension Workers.

Report of progress from Committee on the Co-operation of Smith-Hughes and Smith-Lever Forces.

"Insect Control Teams for Rural Communities," E. G. Kelly, State Agricultural College, Manhattan, Kans.

Discussion of "Junior Extension Work."

Business meeting.

Section V—Village and Consolidated School Principals.

Discussion of organization and possibilities of the consolidated school in a small town or village.

Thursday, March 2, 2:00 P. M.

Closing session, in conjunction with the County Superintendents' Section of the Department of Superintendence, under direction of County Superintendent E. J. Tobin, Chicago.

3:30 P. M.—General business meeting and election of officers.

NATIONAL COUNCIL OF PRIMARY EDUCATION

(Meeting to be held in the Elizabethan Room, Congress Hotel)

Monday, February 27, 2:00 P. M.

General topic: "Comparison of Promotion Requirements in Various First Grades."

Report of Committee on Subject Matter and Method.

General discussion.

Luncheon — International Kindergarten Union and National Council of Primary Education participating.

(Program continued on page 110)

Picture Studies of Animal Emotions

FRANK MORLEY WOODRUFF

Curator, Chicago Academy of Sciences

IN the twenty-eight years during which the writer has been connected with Lincoln Park, there has been abundant opportunity to study closely and deeply the expressions and temperaments of the animals there held in captivity. In fact, such study is practically forced upon one who undertakes to photograph these wild children of Mother Nature in all their moods. With dangerous animals like the lion, tiger, wild cat, cougar and others of their ilk, such a knowledge of the meaning of different expressions alone enables the photographer to know just how closely he may approach with safety, and how far he may venture in provoking the expression he wishes to record with his camera.

Suspicious, Annoyed or Savage?

Take, for instance, the two pictures here presented of the puma, labeled respectively "Suspicion" and "Peevishness." The puma—also known as cougar, catamount and mountain lion—is a very cowardly animal and does not attack unless it is cornered. As I neared the cage with my camera, the animal watched me with the expression of distrust shown in the "Suspicion" photograph. When I struck him lightly across the face with my hat, his expression became decidedly cross and annoyed, as seen in the picture captioned "Peevishness." You will notice that here, although the mouth is open, the eyes are closed. He was not furi-

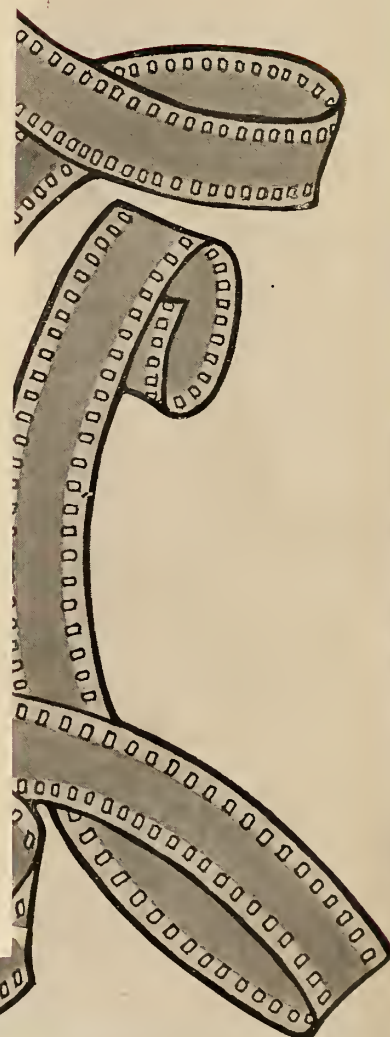
ous, and in this mood it was still safe to approach. Had I, however, continued to torment the beast he would quickly have passed from the comparative mildness of his "peeve" into a mood of genuine anger. Compare the puma's expression, for example, with the savage fury of the Bengal tiger. In this latter picture, titled "Anger," eyes are open as well as mouth. Beware of an animal when it looks like this, for it will "get" you if it can!

The Genial King of Beasts

Extreme good-nature is the characteristic of the lion pictured in this series. Indeed, this particular animal, who bore the proud name of "McKinley," rarely exhibited anger during his captivity. Never once during his life at the zoo, to my knowledge, was "McKinley" known to bite or scratch, and one could pull his ears, stroke his mane, and play with him at any time absolutely without fear.

When the Tiger Flirted

More interesting, perhaps, than these highly contrasting expressions of anger and amiability is the amusingly human look worn by the tiger of our group, who when caught by the camera happened to be in mood flirtatious. To his picture I have appended the legend, "Coyness." I chanced to snap him at a moment when he was showing off to his mate, and no "boulevard vamp" or "lounge lizard" ever cast more lan-





A STUDY

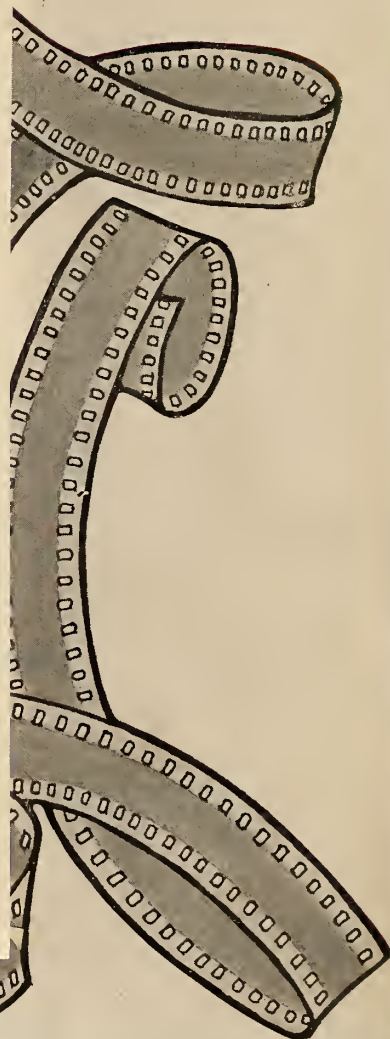
1—ANGER (Bengal tiger). 2—COYNESS (Bengal tiger). 3—GOOD-NATURE (black-maned lion).



IMAL EMOTIONS

EVISHNESS (puma or mountain lion). 5—MOTHER-LOVE (pig-tailed monkey). 6—SUSPICION (puma).

89



THIS ISSUE: *Playing the Health Game*



A STUDY IN ANIMAL EMOTIONS

1—ANGER (Bengal tiger). 2—COYNESS (Bengal tiger). 3—GOOD-NATURE (black-maned lion). 4—PEEVISHNESS (puma or mountain lion). 5—MOTHER-LOVE (pig-tailed monkey). 6—SUSPICION (puma).

guishing glances or registered a greater degree of self-satisfaction than this generally ferocious beast. Pose and expression alike bespoke coy appeal and vanity supreme.

A Monkey Madonna

In the picture of the pig-tailed monkey, with her little one held tightly against her breast, there is the "madonna" look we see among animals—not the soft, melting tenderness associated with human motherhood, but an intense, stern look of protecting care. At the time of this portrait the baby (which, by the way, had the distinction of being the first monkey born in Lincoln Park) was a little less than a month old. It is interesting to observe the wealth of care that a mother monkey lavishes upon her offspring. No other animal exhibits such intense affection or bestows such unremitting attention upon her little one. In fact, in some cases she seems even to outdo the devotion of the average human mother.

"Bread-and-Butter Love"

When it comes to exhibiting attachment to "just folks," the zoo animal as a rule limits its affectionate regard almost entirely to those who bring it food. This "meal-ticket affection," moreover, is more strongly marked in some animals than in others. A lion, for instance, would probably attack any one who abused its keeper, but it would be a matter of indifference to the tiger or the wolf, which rarely develop any strong affection for man. On the other hand, I have seen a pelican strike with

its great clumsy bill at a man who threatened the keeper, thus showing regard for the hand that feeds.

A Rich Field for the Camera

There is no more fascinating subject for the photographer, professional or amateur, than this very subject of animal expressions or emotions. It is a subject that challenges one's best photographic technique and that constantly suggests new lines of research in natural history. And although, to capture certain moods, a degree of what some might term foolhardiness is required, it is nearly always thoroughly justified by the results. Dame Luck has, too, a delightful habit of now and then rewarding the photographer with a happy surprise—an opportunity to photograph something he has not even thought of trying for. Some of the most prized pictures in the writer's collection of animal portraits are the result of unlooked-for chances, suddenly offered and eagerly seized.

Hundreds of these pictures, which now figure in the slide collection of the Society for Visual Education, have brought untold pleasure and profit to lecture audiences of young and old. That they will in the future render still greater service, when put to work in the schools of the land as part and parcel of a nation-wide program of visual education, is a thought that holds no small degree of inspiration for visualists who sense the bigness and worth-whileness of the work which this forward movement in education has in its power to perform for learners everywhere.

[A second series of animal studies by Mr. Woodruff will appear in an early issue of VISUAL EDUCATION.]



The Films in Review

By M. M. F.

ORPHANS OF THE STORM

THE general public has always placed its stamp of unqualified approval upon any offering of D. W. Griffith. There have been times when discriminating souls have deplored in his productions certain qualities which seemed to show a lack of true artistic perception, but the public has never swerved from its devotion to this man, beyond doubt one of the greatest showmen of the day.

In *ORPHANS OF THE STORM*, however, Mr. Griffith has presented his great picture—a picture so perfect in its technique, so successful in its selection of subject matter, and so tremendously effective in its interpretation that it compels admiration from all. There can be but inconsequential criticism of such a production. It is a masterpiece.

When *Passion*, the picture of the German director Lubitsch, was shown here, critics of the photoplay felt that it expressed the last word in dramatic perfection and artistic, sympathetic portrayal of character and historical fact. But now our American director has done the same thing far more impressively and intensely.

One is at a loss to know how best to describe this remarkable picture. With the familiar play of "The Two Orphans" by D'Ennery as its foundation, it goes far beyond the events furnished by that plot

and visualizes the great throes of the French Revolution, when a people drunk with their first taste of power wrote the name of freedom in blood and horrified a watching world with their excesses. Orgies of the nobles, where enough food was wasted to feed many times the gaunt spectres of men and women who stood outside the gates and waited; peasants unspeakably tortured; children dashed beneath the carriages of aristocrats whose only concern was for their horses—all that made the tale of aristocratic oppression complete is visualized with deft touches that skillfully prepare for the succeeding scenes.

And then "the deluge"! An ominous figure beating a drum in a deserted street, and the Revolution had reared its dreadful head. The people demolishing that symbol of tyranny, the Bastille, bearing away their monarch to ignominious captivity and death, swinging pale nobles to lamp-posts, rioting in gutted palaces, surging through that hideous thing, the *Car-magnole*, frenzied, destructive, unconquerable at last—all these events come sweeping across the screen in vivid, colorful and tremendous scenes.

Griffith cannot be surpassed in his handling of mob masses and in the creation and maintenance of suspense. Some of the situations are almost intolerable.





"ORPHANS OF THE STORM"

It takes frenzied mobs and passionate hatreds to usher in democracy and freedom for all.

such a demand do they make upon the some of their mannerisms and give a sympathy. One of the best instances of his ability to hold an audience breathless is the desperate ride of Danton to save Henriette, who has already mounted the scaffold. Flashing you back and forth alternately from the thundering horsemen to the fainting form of the unfortunate girl, the scenes bring you up to the instant when the hand of the executioner is letting slip the knife just before Danton arrives. It is a climax that lifts you out of your seat. You forget that it is only a picture, you forget the people are only actors—you forget everything but what Griffith chooses to have you remember. It is inimitable pictorial narration.

The characterizations are also equally effective. Dorothy and Lillian Gish, as Louise and Henriette respectively, lose

care and realistic performance. The scene where the blind Louise is discovered begging on the street, only again to be torn from her devoted Henriette, is almost climatic in itself, so dramatically is it handled.

Joseph Schildkraut, the Austrian actor, far renowned for the beauty of his face, plays the part of the Chevalier and in appearance fulfills one's idea of a French nobleman. At times, however, he is a trifle too exuberant in demeanor to be entirely consistent with the honored tradition of aristocratic hauteur and insouciance. Leslie King as the peasant harboring memories of a racked father dying in torment to please a nobleman's whim, has an intenseness and a quiet ferocity that are most impressive, particularly in

the tribunal scene where vengeance long delayed is finally his.

The outstanding figure of the picture, however, is that of Danton, Revolutionary leader and patriot. Monte Blue has had here the opportunity of his career, and superbly does he prove himself equal to the occasion. His Danton is a gigantic figure of a man, a man who holds the mob in the hollow of his hand, swaying it as he will by the fire of his oratory and by the magnetism of his personality. Mention must also be made of the impersonation of Robespierre by Sidney Herbert. This was an ungrateful rôle, but Mr. Herbert, rising to its demands, makes "the poor, sea-green formula" a very interesting screen presence.

We are assured by information in the programs that every care has been taken to insure historical fidelity in representation of fact and detail; but so gripping is the story that one does not pause to analyze too critically settings and costumes. Yet the subconscious mind registers the fact that such an accurate period picture would be invaluable in connection with the study of history and literature, provided some of the scenes suitable for the contemplation of the more mature mind only were eliminated.

Some one should persuade Mr. Griffith not to write his own titles. They are usually reeking with a saccharine sentimentality that has no resemblance to genuine feeling. Moreover, he uses this opportunity of addressing the public to get across some kind of vague and unintelligible propaganda concerning brotherhood and democracy and other things of similar import. If the titles of this picture were rewritten, and if the scenes all too obviously intended for comic relief where none is needed were taken out, there would be nothing of moment left to criticise. The fact remains that in this picture Griffith has painted with accuracy, finesse and masterly touch the gigantic social upheaval known as the French Revolution. He has become a pictorial historian of power.

Distributed by D. W. Griffith.

WINNERS OF THE WEST

EVERY ONE knows what a motion-picture serial is—a sequence of episodes replete with hair-raising adventures. These episodes are presented weekly, as a rule, and are so contrived as to leave the hero and heroine on the point of perishing in a vat of boiling oil, or clinging to the face of a thousand-foot cliff, until the unreeling of the next installment releases them from their inconvenient predicament, only to place them in another equally embarrassing position.

The producers of *WINNERS OF THE WEST* claim, however, that here is something new in serials, and those who have seen the opening "chapters"—as they are called—will admit that there is some justification for the claim. The story that runs through the eighteen installments is based upon actual historical events and a definite attempt has been made to convert the reels into something educational as well as recreational.

A time in United States history rich in color and adventure, and significant in the development of the country, has been selected as the background. The motive of the story is the mad rush for the gold fields of California in 1849, and while the narrative built upon this foundation is of course imaginary, the story is nevertheless typical of the adventures of the forty-niners. Characters of such prominence as John Fremont and Kit Carson are introduced in order to give the reels an atmosphere of reality and historical fidelity.

The first three episodes as reviewed are "The Power of Gold," "The Blazing Arrow" and "Perils of the Plains," and they carry the story through the departure of the wagon train from Boonville, Missouri, and through a most thrilling Indian attack on the prairies. There can be no denying that these reels smack strongly of the conventional serial. There is continual violent action of the familiar serial type. The end of each chapter leaves the audience in breathless suspense concerning the fate of the people in-

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

volved, and it is necessary for the following episode to rehearse the closing events of the previous reel in order to gather up the loose ends of the story. As is customary with serials, the escapes of the hero and heroine are nothing short of marvelous and the aggregate of misfortunes befalling them would incapacitate a good-sized nation.

There are many things, however, that will justify the presentation of these reels to children. In the first place, they have educational value, for despite their melodramatic treatment they have historical content. And though it is not a pleasant fact to admit, their extreme vividness will probably be more efficacious in making the facts impressive than would a more dignified and reserved presentation.

The story of the opening of the West is one rapidly becoming lost among the tales of the past. That this achievement involved sacrifice, danger and suffering is now little realized, yet as a result of this picturesque and titanic struggle the present greatness of our country was made possible. The outstanding facts of this vital period should be universally familiar, and the visualization of facts such as those presented in these reels will give a decided impetus to the acquiring of such information. One gets vicariously, yet effectively, the thrills attend-

ant upon the reception of the news that there was gold in California to be had for the taking. There is the frenzied overnight preparation to be the first upon the scene of future wealth. The prairie schooners jolt and creak across the trackless plains, exposed to the fury of the elements and to the attacks of hostile Indians. No matter how much exaggerated events may be, it is made very apparent that to cross the wilderness meant untold privation and danger, and that there were many adventurers whose graves became guiding marks for those who followed. And one must be very blasé indeed not to be thrilled when the prairie schooners are hurriedly grouped into defensive formation as the hideous, whooping Indian warriors draw their galloping circles nearer and nearer.

One of the great difficulties in teaching history is the impossibility of making it alive to the child—of making him realize that people of bygone days were just as real as we are. When he is able to gain that personal and intimate viewpoint history will no longer be a subject contrived only for his discomfort, but instead something of real consequence to him. Anything that in a decent and effective manner makes history real has a legitimate place in the schoolroom, and such a place *WINNERS OF THE WEST* should undoubtedly command. That it is flavored with fiction and highly spiced with lurid adventure does not neutralize the fact that it is history visualized.

Released by Universal.



"WINNERS OF THE WEST"

Fortunate indeed will be hero and heroine to escape the dangers that threaten them here.

RAILROADS IN U. S. HISTORY

SO satiated with sensation and so blasé is the world of today, that the miraculous achievements of modern industry and science seldom elicit even a passing wonder. They are accepted casually as

everyday occurrences. There was a time, however, no more remote than 1828, when people got a real thrill from the gallant little chug of the first locomotive; and today, despite our general boredom, we should be genuinely interested in the phenomenal growth of the railroad during the intervening years, as revealed in this film.

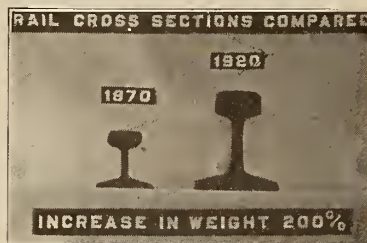
The title of this picture, *RAILROADS IN UNITED STATES HISTORY*, might well be changed to read "A History of United States Railroads," for although the economic connection between territorial development and the railways is clearly shown, yet throughout the film there is much emphasis placed upon the growth of the railroad as an institution. Animated maps may point out, for instance, that the earliest lines were constructed to serve mining districts; the mounting land values that came with the building of the railroads may be strikingly pictured; the routes that now stretch from the wheat-fields of Canada to the ports of the Gulf of Mexico may be significantly indicated; but in addition the reel concerns itself with such details as increase in mileage, operating expenses, changing equipment, and the like.

To bring out the facts of the incredible development of a scant hundred years, statistical comparison visualized through the medium of animated maps, graphs, and other pictorial devices is used. Figures have a psychological effect all their own, whereas generalizing statements too often fail to be convincing. Figures are impressive and—final. And statistics are freely and effectively used through the footage of this picture.

It is of interest to learn that whereas in 1860 it cost \$33,000 to build one mile of railroad, in 1920 the cost had reached the amount of \$97,000; and that while in 1830 only 23 miles of roadbed had been built, by the year 1920 over 260,031 miles lay stretched across our country.

One of the most spectacular statements concerning the present size of the system is to the effect that railway employees today constitute almost one-fifth of the

entire population of the United States. The accompanying illustration showing the increase in weight of rails from 1870 to 1920 not only illustrates one of the



"RAILROADS IN U. S. HISTORY"
Heavier trains demand heavier rails.

many interesting facts pictorially narrated, but also serves to demonstrate how effectively the film employs charts and diagrams to visualize statistical matter.

Both children and adults will appreciate the succession of maps which sketch the gradual extension of transcontinental lines. The completeness of the network of gleaming rails by which our country is bound from north to south and from east to west, making possible its vast commercial and agricultural undertakings as well as its political unification, will be very apparent by the time the last map has flashed across the screen. It has not been forgotten to show here that population and the railroads are dependent one upon the other for growth and permanence.

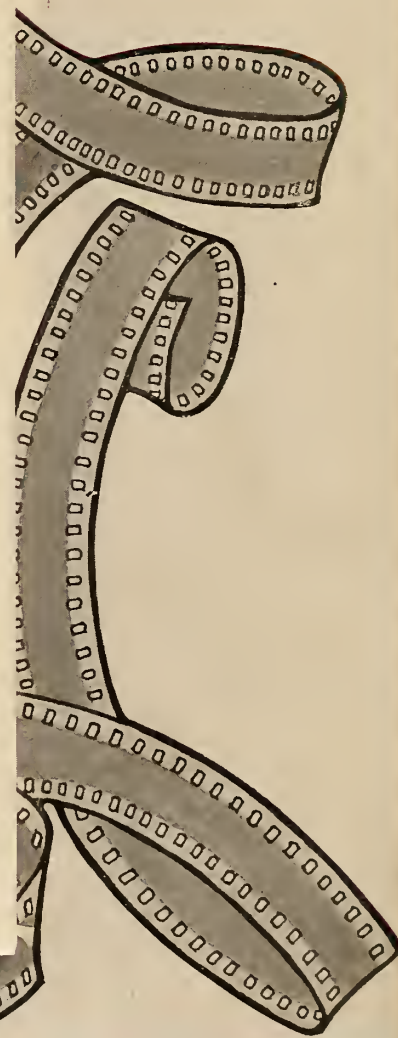
Attractive moving pictures of great feats of railroad engineering, of crowded railway yards, and of old and new types of locomotives, roadbeds and allied equipment, are among the views used to add variety and color to the content.

The educational subject-matter and the systematic, comprehensive treatment given to this pithy reel render it a valuable asset to the teacher of economics and history, while the interest of its information to the public at large easily entitles it to a dignified place in a general recreational program.

Produced by the Society for Visual Education.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



**Handmaid
of the
Teacher**

In the light of far-fetched claims to the effect that motion pictures in the schools bid fair eventually to replace both teachers and textbooks, a few common-sense paragraphs which recently appeared in the *GENERAL SCIENCE QUARTERLY* are worth reprinting.

"The place of the instructional picture in the curriculum of the secondary schools," says the article, "is distinctly that of the handmaid; it is supplemental to the systems of instruction worked out by generations of educators. . . .

"Even the casual student of the subject perceives that the motion picture in no sense minimizes the value of books, of the teacher, of language or of oral recitation. . . . The requirements for teachers are inevitably enlarged and broadened. They must know their subjects as human and full of life, or they are unable to build 'broad and deep' on the superficial interests aroused. They must be quick to note the handle to knowledge grasped by the children, or indicate it to them as the film passes in review. They must know enough of the life and work of the peoples of the world to round out the pictures accurately and impressively.

"No blame can be attached to the motion-picture film for failure to enlarge and beautify the picture on the part of

the teachers. The motion picture now exists as a wonderful stimulator of interest in certain fields of historical, commercial, industrial, anthropological, physical and astronomical geography. It is entirely up to the teacher as to the extent and value of its usage. The ordinary instructional picture deals without pretense with the obvious, the superficial and outstanding facts which attract attention. When once these facts are grasped, the mind more easily permits of reasoning from cause to effect or from effect to cause.

"Some of the terms used in the classroom are almost unintelligible to boys and girls. The use of the dictionary helps somewhat. But even with its aid the children are unable to create accurate and interesting mental pictures. Few children, for example, can visualize the content of such terms as copra, coffee plants, cotton growing and ginning, sugar making, copper, iron or coal mining, ranches, tribal life in Africa, ocean commerce, etc. The motion picture carries the child to the region in question and shows the place or the process in natural surroundings to which is added the element of motion. . . . The teacher who knows and loves her subject will find in the motion picture an opportunity for intensifying and for beautifying textbook and classroom work."

An Encouraging Parallel "The future of the movies as well as its influence upon our own and coming generations depends upon the American audience," is the conclusion set down by Celia Harris in her article, "The Movies and the Elizabethan Theater," which appeared January 4th in *THE OUTLOOK*.

A comparison of the crudeness of the Elizabethan theater and its audience with the American moving picture shows is interesting and fair, because when Shakespeare came to London the English theater was only a few years older than the movies are at the present time. There, as now, the crowds were motley, enthusiastic over cheap melodramas, and packed the play-houses regularly. The literary critics and the social reformers of Elizabeth's day were just as worried over the hopeless situation of the theater as many of our thoughtful people are today over the movie's sins of omission and commission.

"That sixteenth-century mob of English show-lovers, however, proved to have a force which called their playwrights into being," says Celia Harris, "and so created what is now referred to as the golden age of English drama." It was the force of the audience itself. Such an audience created a demand which created playwrights. Only forty years from the start of the English commercial theater, playwrights such as Christopher Marlowe, Robert Greene, Thomas Kyd, George Peele, and William Shakespeare had been created. Even at that rate of development, a fully representative scenario genius in America would not be due to arrive at the height of his art until 1941.

But whether or not we attain a golden age in the movies depends upon the American audience, its enthusiastic support of good qualities to be produced on the screen, and its disapproval of untruthful presentation.

Something New in Motion Pictures

Some one has said that there is never anything new under the sun. However that may be, motion-picture audiences are shortly to be offered something which will be entirely fresh to them, according to a report in *MOTION PICTURE NEWS*.

This new thing in the cinematic world is a series of pictures based on the stories of famous musical compositions, the music of the one being synchronized with the visualized events of the other. Those cognizant of the possibilities of the motion picture can see in these "Visual Symphonies" marked indication of what it can accomplish informationally and culturally.

The productions as listed include subjects whose selection shows unusual discrimination on the part of the producers. Beethoven's "Moonlight Sonata," Saint-Saëns' "Danse Macabre," Debussy's "Faun," the "Japanese Melody" from the "Nutteracker Suite" by Tschaikowsky, the Rimsky-Karsakoff "Scheherazade," Wagner's "Flying Dutchman," Grieg's "Peer Gynt Suite," and others of equal beauty are included among the releases.

The method of developing these themes, as outlined, should result in very interesting pictures. The general plan is "to show in an atmospheric and beautiful way the composer as he dreams and creates his composition. He will be in his studio or at his piano, and as he starts to play, as his hands move on the keyboard, the music will begin and the scene will dissolve into his vision, which is the interpretation of the composition, the action synchronizing with the tempo of the music. In the same manner the story of the composition is told, sometimes in realistic and sometimes in more illusionary and symbolic fashion, until at the end the scene will return to the composer as he sits playing or scoring the composition. Some of these visual symphonies will be in tragedy form, others will be artistic comedies, while still others will be poetic fantasies. It is the purpose to

TION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

get a vitally human and emotional quality into these pictures."

* * *

Motion
Pictures in
the College
Curriculum

In the September, 1921, number of *VISUAL EDUCATION* was published an announcement of a course dealing with the production of moving pictures to be given at Columbia University. Such an announcement, coming from a conservative university of high standing, was very significant in its revelation of a changing attitude to the cinema, so long decried as the bastard of the arts.

So successful has this course proved that it is to be repeated in the Spring Term, with a large enrollment in which there are numbered students from China, Japan and India as well as from all parts of the United States.

This course, which is both cultural and practical, considers the motion picture as a means of expressing thought and communicating ideas. It furnishes a background for understanding and judging motion pictures used for entertainment, for instruction, and in industry. In addition it gives a working knowledge of the principles which underlie production, of the psychology of visual appeal, and familiarity with the best practice in producing motion pictures, both "on location" and in the studio.

The students in this course, which is under the direction of Dr. Rowland Rogers, have had the benefit of hearing people of such attainment in the profession as Rupert Hughes, author, scenarist and director, Rex Ingram, director of *The Four Horsemen of the Apocalypse*, William Farnum, the actor, and others of equal renown. Moreover, they have actually produced a two-reel picture. The beneficial results of such a course, both to the future of the cinema and to the student as an individual, are most obvious.

* * *

Visualizing
the Heavens

Those desiring reliable visual material for correlation with classroom work in astronomy will be interested in

the slides recently prepared by Professor Edwin B. Frost, director of the celebrated Yerkes Observatory, in collaboration with his staff. These slides, which deal with such important astronomical subjects as solar phenomena, the moon, the planets, comets, stars, nebulae and the Milky Way, are assembled in a collection called the One Hundred List, so planned as to be thoroughly representative of present astronomical science.

It is now purposed to prepare a brief description covering each title. This information, which may be procured with the slides at slight additional expense, will provide the teacher with the necessary facts concerning each slide.

In addition to this special list of One Hundred there are available many other slides, to the number of some twelve hundred, information concerning which may be secured from the University of Chicago Press.

* * *

"Jabber-
wock" in
Movieland

There is apparently nothing too sacred or venerable to halt the motion picture in its greedy acquisition of all that art and literature have to offer.

The latest instance of this lack of respect for tradition and prestige is afforded by the Jabberwock, loved by young folks of all ages for his intimate association with Alice of "Through the Looking-Glass" fame.

On the morning of January 29th, this esteemed and dignified animal awoke from his sleeking slumbers to find his slally self in story and picture on the very front page of the Rotogravure Section of the *CHICAGO TRIBUNE*. True, the title, "The Hunting of the Moviewock," looked somewhat strange and the perplexing name of the author, "Bee Gee Eee, in a Line o' Type or Two," did not sound in the least like Lewis Carroll, to whom the Jabberwock had always attributed his existence; yet nevertheless, there he was in print in a Sunday newspaper.

Slithing with joy at this unexpected but well-deserved publicity, he sat down with his friend the walrus to inspect his grace-

ful lines. To his higgish horror, he found them strangely altered. The motion picture people had gone and done it again! While artfully maintaining a deceiving resemblance to his original verses, they had slyly insinuated themselves and the names of their figgish favorites into his stanzas, so that the entire philosophy of the coulig context was altered.

It is true that many people affirmed this procedure was legitimate and commended its results as clever, but the snithy Jabberwock mourns and refuses to be comforted. For who, he moans, will ever recall his classic lines in their original form, once he has read the following reglig rendition?

*'Twas Selig, and the Griffith coves
Did Tearle and Turpin on the screen,
All Gishy were the Nazimoves
And Rudolph Valenteen.*

*"Beware the Walrus-reid, my son!
The varnished hair, the beaded lash!
Beware o' Bara vamps and shun
The Talmadged lady-mash!"*

*He took his Fairbanks sword in hand:
Long time the Bushman foe he sought;
So rested he by the Selznick tree,
In Paramountish thought.*

*And as in Glaumy gloom he stood,
The Walrus-reid, with eyes of flame,
Came scorching through the Hollywood,
Hell-digging as it came.*

*One, two! One, two! And through and
through
His Fairbanks blade went snicker-
snack!
He left it dead, and with its head
He went Tommizing back.*

*"And hast thou slain the Walrus-reid?
Come to my arms, my filmish boy!
O Charlie Ray! Skinoos! Skinnay!"
He Chaplined in his joy.*

*'Twas Selig, and the Griffith coves
Did Tearle and Turpin on the screen,
All Gishy were the Nazimoves
And Rudolph Valenteen.*

A School Film Which Paid

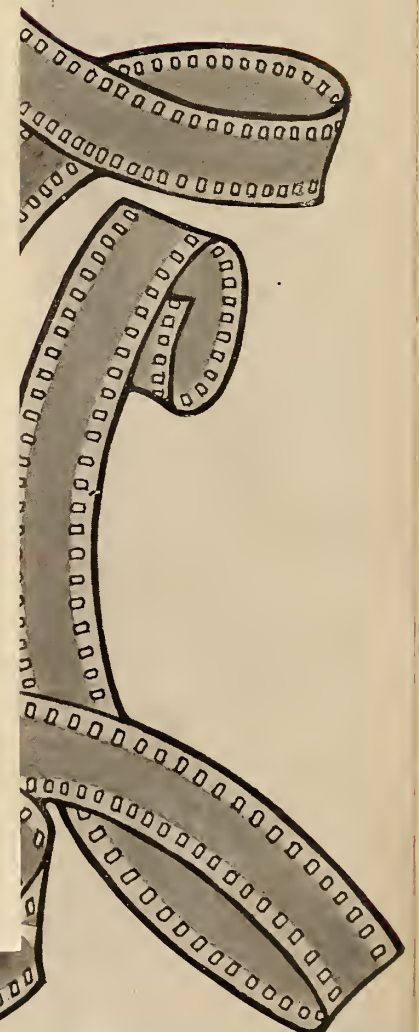
A more effective bit of school advertising and one more definitely successful than that recently achieved by the Board of Education of Duluth, Minnesota, it would be difficult to find. Proof of its success is at hand, for the production and exhibition of four thousand feet of film raised the tax rate for school purposes from 13.8 mills to 20 mills, besides winning the hearty support of the citizens for the public school management.

The Board of Education authorized the production of motion pictures visualizing the activities of pupils attending the city's schools, showing the work as it is actually carried on from day to day. Under the direction of J. A. Starkweather, Assistant Superintendent of Schools, this most popular "super-drama" was produced. Every school in the city was represented in some way. Interesting scenes were filmed of tiny tots in the kindergarten molding birds' nests and playing "London Bridge Is Falling Down"; of boys in the manual training departments, where wood-working, electricity, printing and kindred subjects are taught; of girls learning needlework, cooking and home-nursing. Routine work such as classes in geography, arithmetic and reading, gave a familiar tone to the picture, and capable instructors directing pupils in the various departments introduced a genuine pedagogical atmosphere.

During the first week of the public presentation of this public school film it was viewed by six thousand parents and ten thousand pupils. The latter were fired with ambition to remain in school and enter the higher classes, and that parents and citizens generally were thoroughly "sold" on the schools' activities and programs they proved abundantly by voting their willingness to give more liberal support to the city's educational program.

ATION

ts • 100 a Year



The Picture Hour

The following informal picture-talk is intended to suggest to the teacher various ways in which she can make pictures teach for her and with her. There is no doubt but that a picture with a vital theme can, if properly interpreted, teach as much as, or more than, many pages of textbook information. There are scores of good pictures available for such a purpose that are equal in instructional value to the painting selected as this month's subject.



WASHINGTON CROSSING THE DELAWARE

Courtesy of Chicago Historical Society.

YOU would probably all recognize the figure standing so erect in the prow of the boat even if the title of the picture did not tell you that it was Washington. And you would be likely to guess that the incident pictured occurred during the Revolutionary War, for the boat is full of soldiers and Washington himself is in uniform.

Why do you suppose, though, that he was taking his men across the Delaware river when it was full of huge cakes of floating ice? The swift current of a river, you know, can dash ice so violently against a boat as to sink it, particularly when it is so small a boat as this and so heavily crowded. It must truly have been a very important errand to send them upon so dangerous a journey.

Suppose you turn in your American history text to where it tells about the

battle of Trenton, and read how Washington surprised the British troops on the twenty-sixth day of December, 1776. He surprised them so decidedly, in fact, that they didn't enjoy their Christmas as much as they might have if he had let them alone.

Can you tell from the expressions on the faces of these men of what they were thinking? Could they have been afraid of the dark water, or of the fighting they would have to engage in when they reached the shore? Do you suppose they were wondering what their families were doing on this strange Christmas Day? Perhaps they were proud just to be in the same boat with George Washington. What would you say?

The man at the stern of the boat might be called a backwoodsman. At least, his dress would seem to indicate

that, wouldn't it? By the way, do you think that you could describe the uniform of an American soldier in 1776 just by looking at this picture? They all seem to be dressed differently, but whether this means anything or not you will have to decide. You will remember that the army didn't have much money in those days.

Notice how the cold wind blows the great folds of the flag, so that two men are needed to hold it. Why did they have to carry the flag with them, anyway, when it took up so much room? Have you ever heard of Betsy Ross? You may recall that she had something to do with a flag once upon a time. How would you find out about that matter?

If you look very closely, you will see in the background the figures of horses plunging and rearing. Of course, they didn't know what it was all about, otherwise they might have been more patriotic and not have given their attendants so much trouble. They were brought along to drag something that went on wheels—something that was necessary in battle. What do you imagine it could have been?

By the way, this is rather a large river, isn't it? It might be fun to draw a colored map and show just where Trenton is located and just where it was that

Washington crossed the Delaware. You can make the river a very deep, dark blue.

And now you must look again at the figure of Washington. His figure is what is called the "dominant" one of the group. When you have looked up this word in the dictionary you will understand why it is used about this great man.

Last of all, pretend you are the man in the very front of the boat, the one who is pushing away the ice with his foot. Write a story of the adventures you had in crossing the Delaware. Don't forget to mention that you were in the same boat with Washington.

Don't you think you ought to be proud that our country had such brave men to fight and suffer for it, so that we might be a free nation?

This picture was painted by a man named Emanuel Leutze, who was born in Germany in 1816, but who came to America when he was just a child. Before he died in 1868 he painted many other pictures, all of which deal with some historical subject. People consider him to have been a very good artist. They might be right or they might be wrong. What would you say about it?

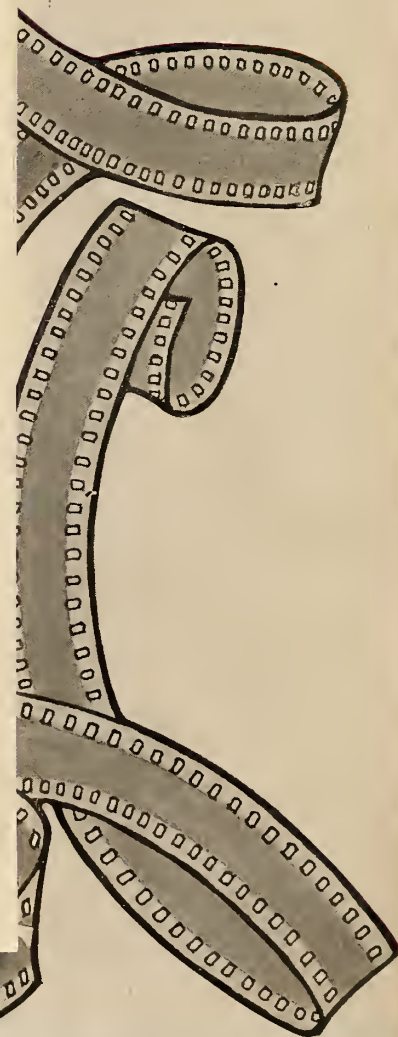
—MARY McKENZIE FRENCH



IN the March issue of VISUAL EDUCATION there will appear the first of a series of articles telling the story of the motion picture, from the first crude manifestations of the idea to the present high development, and including discussions of its significance as a social, educational and industrial force. It is the purpose of these articles to form a complete survey of the motion picture and its modern applications.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



Visual Activities

The World Over

ALABAMA

Anniston. The public school children of this progressive Blue Ridge city are not to be deprived of the advantages of visual education, according to the recent decision of the school board, which has arranged with the management of a local picture house for the showing of educational films on Saturdays. At present only the grammar grades have the film lessons, but it is hoped soon to include the higher grades of both Anniston and Oxford.

CANADA

Montreal. By actual count there are sixty motion picture theaters in Montreal. Quebec, Three-Rivers, Sherbrooke and St. Hyacinthe have about as many theaters as Montreal in proportion to their population, and all of them are flooded with cheap, trashy American films. The Archbishop of Montreal recently called public attention, in no uncertain terms, to the seriousness of the situation. He declared that such films were not only demoralizing French morals, but also the French language. The titles are in English, the whole drama is English, and, as a result, the people read the English titles, think in English and live English—objections, in his

very evident opinion, which no amount of censoring can eliminate.

FRANCE

Paris. The entire French press is backing the educational film for school use, and educators have not been slow to see its true value in the pedagogic field. Certain films have been placed on an equality with textbooks, and a motion-picture library for the use of the schools has been established. A special commission has been empowered to organize a motion-picture educational department in the lower grades, this service to be extended to the higher grades as soon as funds become available.

GERMANY

Leipzig. Educational films were introduced on a big scale in Leipzig when, on November 2, a thousand boy and girl students attended a geography lesson screened for them by Dr. Beyfuss. The topic was the Alps, and the pupils were taught in this illustrative manner the origin and present condition of the industries of the Alpine region. Other screen lessons will follow at stated periods. The Cultural and Instructional Film Company of Magdeburg

is the controlling company in the educational field.

Stuttgart. Various motion-picture houses in Stuttgart have combined in a reform movement and are making a concerted attack on cheap German films which are sensational in the extreme. Educational and instructional pictures are shown part of each week for the purpose of raising the standards of the picture-going public. In spite of monetary losses and some discouraging circumstances at the outset, these theaters are persisting in their effort to put the moving picture on a higher basis. It is said that one company alone has expended over twelve million marks in its educational uplift department.

ILLINOIS

Streator. The taxpayers of this city have been made acquainted with the overcrowded condition of the township high school through the medium of films designed to open their eyes and their pocketbooks to the crying needs of the school children. Scenes of the beautiful lawn and of boys wending their way schoolward with reluctant feet, are followed by views of the children in the assembly hall where 550 pupils are crowded into a place where 300 could be comfortably seated. The children appear young for their grades and undersized—which, it is said, may be a blessing in disguise since two such students can occupy one full-sized bench! Surely the exhibition of such a film will hasten the necessary building plans.

INDIANA

Dyer and Schererville. The tentative selection of the section of Lincoln Highway in Lake County, between these two towns, as the locale for its "object lesson" has been emphasized by the recent securing of a considerable footage of motion pictures depicting the present undesirable appearance of the old road. The primary purpose of this film is to stimu-

late a wider public interest in more adequate highway specifications. Under the personal direction of A. F. Dement, vice-president and secretary of the Lincoln Highway Association, scenes were selected which showed traffic in this section, the restricted width of the present road, the inadequate nature of the existing construction, the dangerous and weed-choked ditches on either side of the right of way, and many other features. Later these scenes will be used in contrast with the appearance of the finally completed ideal section, should arrangements ultimately be made for its construction in Lake County. "What they have and what they should have" will then be placed before the taxpayers.

Logansport. The Rev. C. Wellington Holmes, pastor of the Universalist Church, has inaugurated a winter program of motion-picture shows, supplanting the regular Sunday evening preaching services. This program will be continued until the latter part of March.

IOWA

Indianola. Simpson College gives a program of educational pictures at the chapel every Saturday evening. Industrial films, travelogs and scenics are planned more especially for the students, but the public is invited and no admission charge is made.

KANSAS

Topeka. "Let your conscience be your guide," was the final consensus of opinion regarding the use of motion pictures in churches, after a prolonged and heated discussion by the Topeka Ministerial Union on December 5. In order to "stop beating about the bush and bring the aimless discussion to a point," the Rev. C. F. Mathews of the First Baptist Church introduced a motion recommending that the churches approve motion pictures in the church. His motion aroused a storm of criticism, several of the clergymen threatening to with-

TION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

draw from the ministerial union. However, they later reconsidered their statements and agreed to the motion, which was finally adopted.

MARYLAND

Baltimore. In his first address in Baltimore since becoming Commissioner of Education, Dr. John J. Tigert talked on the educational influence of motion pictures at a meeting of the Maryland branch of the National Congress of Mothers and Parent-Teacher Associations. "There are about 20,000,000 children in the country's schools today," he said, "and there are 20,000,000 persons every day in the motion-picture theaters. Visual forms of demonstration are more effective than the printed word, and the things learned in the motion picture theater make a deeper impression upon a more influential audience than the instruction of a teacher. It is easy to see why the movies are having a greater effect upon our citizens, present and to come, than all the schools combined. Therefore the kind of pictures shown in the theaters is of great significance. You women are largely responsible for the character of the pictures demanded by the public. If the movies are to be brought to a higher plane, you women must lend aid. The community is woman's sphere now, and your interest is vital not only for the good of the movies, but for the welfare of the schools."

Baltimore. Plans for the proposed \$100,000 church for the Wilkins Avenue Southern Methodist Episcopal congregation include a complete gymnasium and facilities for showing moving pictures. "This idea of having a gymnasium and motion pictures in a church room connected with a church is new to Baltimore," said the Rev. H. P. Baker. "Of course, we won't permit any 'wild fire' movies. Entertaining and instructive films relating to Bible studies and educational subjects will be shown."

MICHIGAN

Dowagiac. A five-reel motion picture entitled "Spring Valley," produced by farmers and acted by farmers, is the latest achievement of the American Farm Bureau Federation. In this drama, which is entertaining as well as instructive, romance and adventure are interwoven with the basic economic problems of farm life. The Federation believes there is a big field for this sort of picture, and others of the same kind are to follow.

Marquette. A beneficent use has been found for the county's projector at the poor farm. A recent meeting of the committee in charge revealed the fact that very little entertainment has been provided for inmates of the county house and patients in the sanitarium, and it was voted to bring happy diversion to these unfortunate people by means of the county's projection machine.

MISSOURI

Maryville. The Christian Church is to utilize a film of its own production in its evangelistic conferences and associations. The picture was shown at the First Christian church recently, and has already been spoken for by the National Evangelistic Association for their Middle-West Assembly, to be held at Kansas City in a few months.

NEW JERSEY

Passaic. The belief of members of St. Peter's Episcopal Church in the future of the film in connection with church activities, is indicated by the fact that their plans for a new parish hall include a fire-proof booth large enough to accommodate two moving-picture machines. With the erection of the parish hall it is planned to enlarge the present church to double its present seating capacity.

NEW YORK

New Rochelle. A tie-up between Dr. Leonard, Superintendent of Schools, and the proprietor of the North Ave-

nue Theater portends much good to both the schools and the theater. Special instructional programs are given Fridays and Saturdays after being O. K'd at a preliminary showing for the teachers. The exhibitor now has behind him the executive office of the Board of Education, the teaching force of the city, the Parent-Teacher Association, the Better Films Committees, the newspapers and the school children themselves. As a result he finds a hitherto unworked field for business prosperity.

New York. No better field for the lessons taught by "Hats Off," a patriotic reel produced by the Society for Visual Education, could have been found than the ten schools in New York City where the film was recently shown. Ernest L. Crandall, Director of Lectures and Visual Instruction, who arranged these showings, stated that the teachers gave high praise to this screen story of the Stars and Stripes.

New York. The Visual Instruction Association recently sponsored a demonstration of the educational value of classroom films at the Washington Irving High School which would have been a surprise to those whose wholesale condemnation of the "movies" frequently finds its way into print. Civics and geography pictures were particularly under discussion. The titles were purposely indefinite, leaving many details to be supplied in the classroom through questioning by the teacher or discussion among the children. For instance, in a geography film the first scene was entitled merely "In Western Europe." Belgium was the locale, but before the class could decide this fact it had to reason that although the people were attired similarly to the Hollanders, the land was hilly instead of flat and there were no windmills: so the country could not be Holland and, therefore, must be Belgium. Thinking

and reasoning faculties were well exercised during the film lessons. It was demonstrated that the instructional and industrial films fall far short of the bona-fide educational film prepared for classroom use, and that the picture is the means to an end and not the goal itself.

OKLAHOMA

Tulsa. During "Education Week," Principal Perry Carmichael of the Horace Mann School talked on "Visual Education" before the Ad Club. Among other things he said: "How many of us here today can remember the old-time textbook! There were no pictures in those days because the educators said that pictures would tend to distract the minds of school children from the real subject matter. Today we have changed from the old-time idea and are learning that the more pictures consistent with the best study of the subject at hand, the faster the child will learn. In our schools in Tulsa we are starting the system of film education. Moving picture films of an educational nature are sent about from school to school. While the child is studying the Middle Atlantic states in his geography, we show pictures of these states on the screen: what they grow, their larger cities, the different mountain ranges, and other interesting and instructive phases peculiar to that section."

WISCONSIN

Fond du Lac. Forty-two rural schools have applied to the County Farm Bureau for motion-picture programs, and the venture has been acclaimed a great success. Programs have been given in sixteen schools, dates have been set for twelve others, and fourteen additional applications are pending until dates can be arranged. Besides this the County Farm Bureau is offering to furnish programs for township organizations during the winter.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



The Film Field

THE number of "educational films" produced by the professional motion-picture companies is increasing and the quality is steadily improving. A number of such films will be listed each month. Any exchange or producer listed in this department will gladly send full information on his service in general or on any particular film.

In offering these selections, however, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies.

In general, films should be viewed by qualified judges before being shown to school children.

FOR LINCOLN AND WASHINGTON BIRTHDAY EXERCISES

OLD GLORY—This reel pictures some of the great occasions on which the Stars and Stripes were unfurled after their birth in the home of Betsy Ross. Important events of our country's history are reviewed: the signing of the Declaration of Independence; the surrender of Cornwallis; the War of 1812; the Mexican War, 1846-1865; the Spanish American War in 1898. (*d*, Beseler Film Co.)

THE STORY OF THE BELL—A one-reel historical film produced by the Atlas Educational Film Company and distributed by the University of Wisconsin.

LIFE OF LINCOLN—The University of Wisconsin distributes two different films on this subject, each two reels in length.

THE GAUNTLETS OF WASHINGTON—An incident in which an old man relates his part in saving the life of General

Washington. (*d*, Atlas Educational Film Co.)

THE SON OF DEMOCRACY—Ten episodes presenting comprehensively and effectively various phases of the life of Lincoln—a series to be strongly commended for its accuracy and historical value. Among these episodes, which are two reels in length, each comprising a complete story, are "My Mother," "My Father," "The Call to Arms," "My First Jury," "Tender Memories," "A President's Answer," "My Native State," "Down the River," "The Slave Auction," and "Under the Stars." (*d*, Famous Players-Lasky Corp.)

THE HIGHEST LAW—The plot of the story is a romance which brings in Lincoln in a very vital way. The presentation of his character is excellently done by Ralph Ince. This is a feature which will be most acceptable for school use. (*p* and *d*, Select Pictures Corp.)

In the brackets following the sketch are given the names of producers and distributors, the producer being indicated by the letter "p" and the distributor by "d." For addresses consult lists in this issue. Always write to the nearest exchange, when given, otherwise, to the producer. All entries are 1 reel (1,000 ft.) in length unless otherwise specified.

THE MIDNIGHT RIDE OF PAUL REVERE—The words of the nationally-known poem accompany the action as it is unfolded on the screen. Two reels. (d, Atlas Educational Film Co.)

BETSY ROSS—A patriotic drama of Revolutionary days, woven around the story of the making of the first American flag. Alice Brady enacts the rôle of Betsy Ross. Special care has been taken to have picture, scenes, costumes and data historically accurate. Five reels.

THE BOSTON TEA PARTY—Portrays the colonists' famous coup which was a factor in precipitating the American Revolution. (d, Atlas Educational Film Co.)

BRAVE WOMEN OF '76—The soul-stirring events of this formative period of our country's history are portrayed from a different angle from the usual in this one-reel picture. (d, Beseler Film Co.)

"HATS OFF!"—A STORY OF THE FLAG—Embodies scenes of historical interest in order to show what Old Glory stands for in the hearts of loyal Americans, and to visualize the patriotic courtesy which every citizen should show this symbol of his country. This picture is particularly appropriate at the present because it incorporates scenes in which Washington, Lincoln and "The Spirit of '76" come alive on the screen. (p and d, Society for Visual Education.)

FOR THE LITERATURE CLASS

EDGAR ALLAN POE—A praiseworthy attempt to present important events in the life of this ill-starred poet, together with a visualization of his mournful poem, "Annabel Lee." (p and d, Kineto of Amer.)

THE BEGGAR MAID—This picture is the first one of a series with masterpieces of art serving for the theme. The film consists of a romance built around the painting by Burne-Jones called "King Cophetua and the Beggar Maid," a subject inspired by the verses of Tennyson. The plot finds occasion to visualize the famous artist himself, and while the events are of course imaginary, there is decided informational value to be derived from the film. (p, Triart; d, Hodkinson.)

A HOOSIER ROMANCE—A visualization of James Whitcomb Riley's poem by the same name which pictures faithfully and with appeal rural life in the Hoosier state. The subtitles are quotations from the poem itself. (d, Extension Division, University of Indiana.)

FILMS ON NATURE STUDY AND OTHER SCIENCES

THE FOUR SEASONS—An unusual educational study of the effect of the seasons upon animal and plant life. There are many items of information not commonly known presented in this reel, which should be of interest to both young and old. (p, Chas. Urban; d, Kineto Co. of Amer.)

KINETO REVIEW 100—This reel pictures experiments of both a chemical and a mechanical nature. The subtitles are couched in strictly scientific language. (p and d, Kineto Co. of Amer.)

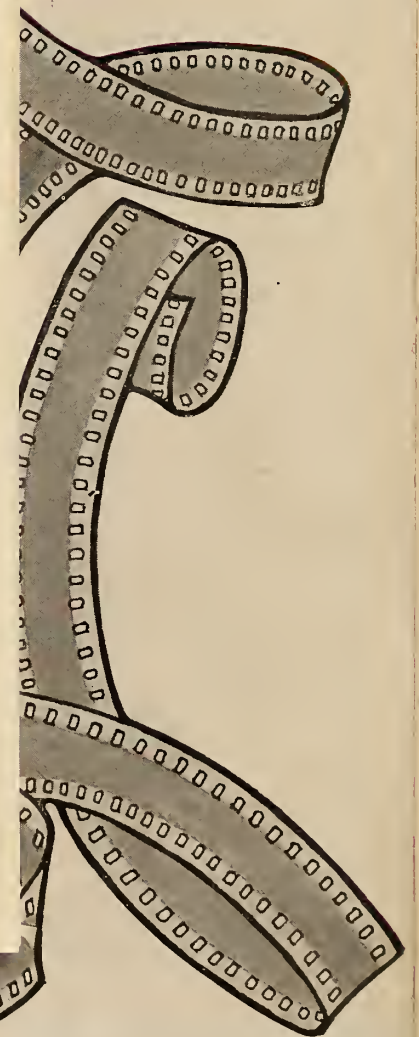
WILD LIFE STUDIES—The list of animals assembled in this reel resembles the roster of the Ark. Among others present are the Siberian tiger, Barbary lion, gorilla, orang-utan, Indian elephant, African elephant, zebra, African secretary bird, giraffe, and three thousand-pound tortoise. (p, Sanborn Zoological Series; d, National Non-Theatrical Motion Pictures.)

SURGERY AT THE ZOO—The unusual skill and ingenuity necessary in caring for a varied assortment of wild animals are demonstrated in this film. (p and d, Educational Films Corp.)

FORMATION OF CAVES IN LIMESTONE—Designed to give an accurate picture of the structure and size of limestone caves. Graphic chalk sketches, drawn by Dr. W. W. Atwood in person, show clearly how water seeping through the earth's crust wears away the softer parts of some ledge of rock many feet below the surface. In this way underground tunnels and caves are made. Then, step by step, the diagrams picture how the constant dripping of water from above, filled with lime particles, causes stalactites and stalagmites to form. After a time some of these unite, forming columns that divide the cave into rooms. In his chalk picture Dr. Atwood visualizes the great size of many of these rooms—sometimes large enough to accommodate lakes and rivers. (p and d, Society for Visual Education.)

FOR THE GEOGRAPHY LESSON

BONNETS OF AUVERGNE—A Bruce Scenic. Special attention is paid in this film to various types of French peasants and particularly to their extraordinary headdress, but there are many other things to interest; as, for instance, a huge statue of the Virgin which marks the summit of a volcanic hill. (p and d, Educ. Films Corp.)



STROLLING MINSTRELS—A Scotch bagpiper strolling through the lake region of Scotland and a piping shepherd in the mountains of Switzerland—the fair scenes that greeted their eyes are here unrolled for the delight of those who cannot travel. (*p* and *d*, Educ. Films Corp.)

JOURNEYING IN JAVA—Here is a reel brimming with alluring views of the quaint places and native life of this tropical island of spice. The Boero Boedor Temple, built in the eighth century and ornamented with carvings depicting events in the life of Gautama, is among the sights to be seen. (*p*, Austin Film Library, Inc.; *d*, Harry Levey Service Corp.)

KWANG-CHOW-FU — Kwang-Chow-Fu is a very old Chinese city whose antiquity and oriental charm lend themselves graciously to the art of the camera. Included in this picture are views of the harbor of Canton. (*p*, Burton Holmes; *d*, Famous Players-Lasky.)

WATERS OF DESTINY—Lakes of snow-capped mountains and of extinct volcanoes are shown here with the story of the changing skies written upon their placid waters. A film for nature-lovers! (*p*, Robertson-Cole; *d*, National Non-Theatrical Motion Pictures.)

SEEING SAN MARINO—San Marino is a very old Italian republic only thirty miles square and with a population of but 12,000, yet it is possessed of sufficient historic and current interest to make it a most attractive visual subject. (*p* and *d*, Pathe.)

THE EDEN OF THE PACIFIC—A colored study of Hawaii featuring scenes of historical interest in the Honolulu district. The night-blooming cereus, that mysterious flower of darkness, receives considerable footage. (*p* and *d*, Prizma.)

FOR THE CURRENT EVENTS CLASS

PATHE NEWS NO. 99—Views of President Harding addressing the 67th Congress at its opening session, celebrities figuring prominently in the settlement of the Irish question, scenes of unhappy Petrograd, the foundering of the new U. S. submarine, S-48, and pictures of the initial use of helium gas, are all to be found in this unusually interesting reel. (*p* and *d*, Pathe.)

PATHE REVIEW NO. 130—In this reel are shown English and American styles of broad jumping demonstrated by crack jumpers from Oxford and Cambridge; various processes in the making of an automobile tire; northern Africa

in the spring of the year, and views of St. Augustine, the oldest city in the United States. (*p* and *d*, Pathe.)

PATHE REVIEW NO. 133—Normal and slow motion photography of Tilden and Johnston, famed tennis players, in action; hunting of wild turkeys; colored views of the steaming pools in Yellowstone National Park; glimpses of Malaga, Spain, the oldest seaport in Europe—sufficient variety, surely, to interest all. (*p* and *d*, Pathe.)

CHAS. URBAN MOVIE CHAT NO. 68—A bit of Ireland, an Angora rabbit from California, oil fields in Texas, and glimpses of South America, make up the varied contents of this reel. (*p* and *d*, Kineto Co. of Amer.)

"HOW IT IS DONE"

BETTER MILK—This film is described as tracing the progress of milk from grass to automatically capped bottle. In between, however, are many processes, as may easily be imagined, all of which the picture makes amusingly clear. (*p* and *d*, Kineto Co. of Amer.)

A MOVIE TRIP THROUGH FILMLAND—The facts that are revealed in this picture concerning the size of this industry are most startling. Few people have any idea, for instance, that next to the United States mint the film industry is America's largest consumer of silver. Animations and cartoons are used to reveal more astounding facts and to add variety to the interesting reels. (*p* and *d*, Eastman Kodak Company.) 2 reels.

INDUSTRIES OF THE PHILIPPINE ISLANDS—Two industries are pictured in this reel—the growing and preparation of hemp and of copra. The various processes in the production of the latter, which is the dried meat of the coconut, are picturesque in the extreme. The entire reel is excellently photographed and highly artistic. (*p*, Austin Film Library, Inc.; *d*, Harry Levey Service Corp.)

THE PANAMA CANAL—The reels of this film comprehensively record the many steps in the construction of this vital waterway. The film is a revelation of the perseverance and ingenuity of man in overcoming enormous obstacles of nature to further his own ends. (*p* and *d*, General Electric Co.) 2 reels.

VOCATIONAL TRAINING FOR BLIND SOLDIERS—A pictorial exposition of what is being done by the American Red Cross at "Evergreen," Baltimore,

(Continued on page 112)

Teaching Agriculture by Chart and Film

(Continued from page 81)

The department co-operates with communities in holding two-day short courses or community meetings or in conducting more extensive campaigns. It furnishes crews of experienced speakers, demonstrators and farmers, who use lecture charts, lantern slides and motion-picture reels to illustrate their talks. They hold meetings in halls, churches, schoolhouses, empty store buildings or tents, in vacant lots or out on the farms—wherever the people can gather to hear them. They discuss the problem that is most important to the community—corn, oats, wheat, alfalfa, live stock, poultry, diversified farming, animal or plant diseases, insect pests, gardening, canning or storing of fruits and vegetables, sanitation, home economics, home ownership, community development. Approximately 16,000 campaign, short course and community meetings have been conducted, attended by 1,800,000 people.

The department has prepared lecture charts, lantern slides and motion-picture reels covering nearly all farm, home and community subjects. These are loaned to county agricultural agents, farmers' organizations, Chambers of Commerce, educational workers or institutions; in short, to any individual or organization that really wants to help a community. The only charge for this service is for transportation of material. These charts, slides and reels have been used at over 56,500 meetings

and nearly ten million people have been benefited.

Why Visual Materials Are Featured

Years of experience have taught the department two great truths. One of these is that people of all classes, of all environments, have one thing in common—a desire to learn. The second truth is that no other method of instruction is so efficient as the visual method. As a means of obtaining knowledge, the eye is vastly more effective than the ear. What we see we more readily understand, more readily assimilate, more vividly retain, than what we hear. Department lecturers realize that were they deprived of the use of charts and slides their talks would lose half their effectiveness.

During the past nine years the department has, in one way or another, helped men, women, boys and girls in every state of the Union, in Alaska, Hawaii, the Philippines, Canada, Mexico, Peru, Argentine, Porto Rico, Holland, France, Russia and China.

The Agricultural Extension Department is not making any efforts to bring direct benefits to the company, except that the company, as a citizen, will be benefited in the same measure as any other citizen is benefited. The sole purpose of the department is to serve as a medium through which the duty of the International Harvester Company toward the welfare of the human family may find effective expression.

[A second article by Mr. Cooley, "Vitalized Agriculture in the Rural Schools," discussing the application of visual aids to the new method of teaching agriculture, will appear in an early issue.]

ATION

ts • 100 a Year

THIS ISSUE: *Playing the Health Game*

Program of the Department of Superintendence And Other N. E. A. Departments

(Continued from page 86)

DEPARTMENT OF VOCATIONAL EDUCATION AND PRACTICAL ARTS

(Two meetings will be held in the Crystal Room, Hotel Sherman)

Tuesday, February 28, 1:30 P. M.

"Part-Time Education," Dr. C. A. Prosser, Director Dunwoody Institute, Minneapolis; Mrs. Susan M. Dorsey, Superintendent of Schools, Los Angeles, Calif.

General discussion.

"Differentiation Between Vocational Industrial Education and General Manual Training or Industrial Arts," T. E. Johnson, State Superintendent of Public Instruction, Michigan; Supt. I. I. Cammack, Kansas City, Mo.

General discussion.

Wednesday Afternoon, March 1

"Fundamental Problems in Vocational Home-Making in the High School," Miss Anna E. Richardson, Chief Home Economics Education Service, Federal Board for Vocational Education, Washington, D. C.; Miss Wylle B. McNeal, State Supervisor of Home Economics, St. Paul, Minn.

General discussion.

"Is Expenditure of City Funds for Evening Adult Vocational Education Justifiable?" Superintendent J. H. Beveridge, Omaha, Nebr.; Superintendent E. C. Hartwell, Buffalo, N. Y.

General discussion.

NATIONAL ASSOCIATION OF HIGH SCHOOL SUPERVISORS AND INSPECTORS

(Two meetings will be held in the Banquet Room, Auditorium Hotel)

Tuesday Afternoon, February 28

General topic: "The Determination of High School Levels by Means of Intelligence Tests and Tests of Achievement."

"Similarities and Differences in Standards of Accrediting," J. B. Edmonson, University of Michigan.

Discussion of the present situation as to standardizing tests for high schools and suggestions for a program of procedure, led by Dean M. E. Haggerty, University of Minnesota.

"Some Results Now Available in Different States," Harold L. Camp, Assistant High School Visitor, University of Illinois.

General discussion.

Wednesday, March 1, 2:00 P. M.

"The Problem of High School Buildings," Clarence D. Kingsley, Supervisor of Secondary Education in Massachusetts.

Round-table discussion led by Prof. Thomas Lloyd Jones, University of Wisconsin.

Business meeting.

NATIONAL SOCIETY OF COLLEGE TEACHERS OF EDUCATION

(Three meetings will be held in the Ball Room, Auditorium Hotel)

Monday Afternoon, February 27

General topic: "Progress and Present Status in the Scientific Study of Education." "Mental Tests," Dr. S. S. Colvin, Brown University.

Discussion led by Dr. F. N. Freeman, University of Chicago.

"Statistical Method," Dr. H. O. Rugg, Columbia University.

"Subject Tests," Dr. B. R. Buckingham, Ohio State University.

"Educational Determinism," Dr. W. C. Bagley, Columbia University.

Tuesday, February 28, 2:30 P. M.

General topic: "College Instruction in Education."

"The Place of the Project Method in College Courses in Education," Dr. W. H. Kilpatrick, Columbia University.

"The Case for the Case Method," Dr. L. O. Cummings, Harvard University.

Discussion led by Harlan Updegraff, University of Pennsylvania.

"The Needs of the Educational Practitioner," Dr. Raymond A. Sies, University of Kentucky.

Business meeting.

Wednesday, March 1, 2:30 P. M.

General topic: "The Organization of College Departments of Education."

"The Distribution of Functions of College Departments of Education and of Normal and Training Schools," Dr. J. W. Withers, New York University.

Discussion led by Dr. Livingston C. Lord, Charleston, Ill.

"The Relations of Departments of Education to Other Departments of the College or University," Dr. M. E. Haggerty, University of Minnesota.

"Standards for Professional Approval," Dr. W. S. Gray, University of Chicago.

"The Relations of College Departments of Education to State and City School Systems," Dr. George D. Strayer, Columbia University.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

Saturday Evening, February 25—Elizabethan Room, Congress Hotel

"Nature and Uses of Mental Tests of the Linguistic Type," Dr. S. S. Colvin, Brown University.

"The Statistical Aspect of Testing," Dr. H. O. Rugg, Lincoln School of Teachers' College, Columbia University.

"The Functions of Bureaus of Educational Measurements," Dr. B. R. Buckingham, Ohio State University.

Tuesday Evening, February 28—Auditorium Theater

Joint meeting with the Department of Superintendence.

"The Promotion of Gifted Children," Dean H. W. Holmes, Harvard University.

"The Classification of 10,000 First-Grade Detroit Children by Mental Tests," Dr. C. S. Berry, University of Michigan.

"Intelligence Tests of Normal School Students," Miss Bessie L. Gambrill, State Normal School, Trenton, N. J.

"Intelligence Tests in Women's Colleges," Miss Agnes Rogers, Goucher College, Baltimore, Md.

AMERICAN HOME ECONOMICS ASSOCIATION

Tuesday, February 28, 10:00 A. M.—Red Room, Hotel La Salle

General topic: "Nutrition of Children."

"The Feeding and Physiology of Children," Miss Amy L. Daniels, University of Iowa. Questions and general discussion.

"Nutrition work with Elementary and Secondary School Pupils," Miss Lydia J. Roberts, University of Chicago.

Tuesday Afternoon, February 28

Trips to industrial establishments, clinics, penny lunches, and inspection of exhibits of public school work.

Wednesday, March 1, 10:00 A. M.—Red Room, Hotel La Salle

Open meeting under auspices of the Teaching Section, Miss Jennie H. Snow, Supervisor of Household Arts, presiding. General topic: "A Basis for Forming Home Economics Courses."

"A Psychologist's Viewpoint," Miss Stella Vincent.

Discussion, led by Miss Emma Conley, Department of Education, New York State:

Anna Richardson, Federal Board for Vocational Education; Mrs. Helen T. Woolley, Merrill-Palmer School, Detroit; Miss Mabel Wellman, Indiana University.

Trips and inspection of exhibits.

Wednesday Evening, March 1—Chicago College Club

Dinner.

Thursday, March 2—University of Chicago

"What the Office of Home Economics is Doing for Secondary Schools," Miss Minna C. Denton, Assistant Chief of Home Economics, U. S. Department of Agriculture.

Presentation of clothing tests, with practical demonstrations with elementary and high school pupils, by Miss Mabel Trilling, University of Chicago; Miss Florence Williams, Supervisor, Richmond, Ind.; Miss Adah Hess, Acting State Supervisor of Home Economics Education in Illinois.

Presentation of food tests, by Helen Goodspeed, State Supervisor of Vocational Home Economics in Wisconsin.

DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS

(Two meetings will be held in the Cameo Room, Morrison Hotel)

Tuesday Afternoon, February 28

General topic: "The Professional Status of the Elementary School Principalship."

"Some Objectives of the Department of Elementary School Principals," President Leonard Power, Principal Franklin School, Port Arthur, Texas.

"The Elementary School Principalship from the Viewpoint of the Superintendent," Dr. David B. Corson, Superintendent of Schools, Newark, N. J.

Discussion, led by Superintendent Fred H. Hunter, Oakland, Calif.; Superintendent Wm. M. Davidson, Pittsburgh, Pa.; District Supt. Edward N. Stitt, New York City.

Wednesday Afternoon, March 1

General topic: "The Elementary School in Its Social Setting."

"Developing the School as a Social Unit," Ide G. Sargeant, Principal of School No. 10, Paterson, N. J.

"The Socialized Recitation as a Problem in the Elementary School," William Wade Walters, Principal Ashland School, St. Louis, Mo.

"The Relation of the Public Library to the Public Elementary School," Elizabeth Dolan, Principal Mark Twain School, Kansas City, Mo.

"Juvenile Delinquency as a Social Problem of the Elementary School," Olive M. Jones, Principal Probationary School No. 120, New York City.

"Socializing the Elementary School Course of Study," Thomas Agnew, Jr., Principal Horace Mann School, Bayonne, N. J.

"Social Forces Within the Elementary School," Thomas Alexander.

ATION

ts • 100 a Year



VISUAL EDUCATION

CITY TRAINING SCHOOL SECTION

Two meetings will be held in the East Room, Hotel La Salle, Monday and Tuesday afternoons, February 27 and 28.

NATIONAL ASSOCIATION OF DIRECTORS OF EDUCATIONAL RESEARCH

Three meetings will be held in the Gold Room of the Congress Hotel, afternoons of February 28, March 1 and March 2, and in the Florentine Room, Congress Hotel, Thursday evening, March 2

NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS

Four meetings will be held at the Hotel La Salle—the first in the Red Room, the second, third and fourth in the Ball Room—on the afternoons of February 27, February 28, March 1 and March 2

Subjects for consideration:
"Fundamental Responsibilities of a Principal."
"Democratized Procedure."
"What Next in Secondary Education?"
Round-table discussion.

Committee reports and discussions on:
Distribution of Students' Time; Standardization of Teachers' Marks; Standardization of Requirements for High School Graduation; Standardization of Best Methods of Office Procedure.

INTERNATIONAL KINDERGARTEN UNION

Two meetings will be held—a luncheon in conjunction with the National Council of Primary Education, in the Elizabethan Room, Congress Hotel, Monday noon, February 27; and on Thursday evening, March 2, in the Gold Room of the Congress Hotel

The Film Field

(Continued from page 108)

Md., for the men from whom the war cut off the light forever. (*p* and *d*, Amer. Red Cross.)

MISCELLANEOUS SUBJECTS

PERMANENT PEACE—Intimate views of men like Lloyd George, Clémenceau, Orlando, Wilson, Harding and Hughes are shown in this picture, which is really a timely exposition of the Conference for Limitation of Armaments. The titles of the reel are selected from the speeches of the men pictured. (*p* and *d*, Kineto Co. of Amer.)

COULD COLUMBUS DISCOVER AN AMERICA?—This is an unusual picture of New York City in that it is devoted exclusively to portraying the types that help to make up the city's diversified population and which give it what is usually termed as "atmosphere." (*p* and *d*, Educ. Films Corp.)

IN CONNECTION WITH THE SERMON

MY SHEPHERD—The twenty-third psalm should lend itself beautifully to visualization if artistically and reverently treated. (*p* and *d*, International Church Film Corporation.)

BEHOLD THE MAN—A revised and shortened edition of "The Life of Our Savior," a picture previously released by the same company. This film is described as a work of rare dramatic merit which knits the important events of the life of Christ into a compact sequence. The picture has no closeups and thus avoids any suggestion of sacrilege. The entire film is hand-colored. (*p* and *d*, Pathe.)

THE BOY SAMUEL—The incident in the temple, when God spoke to the child Samuel through the dusk of the night, forms the main motif of this picture. (*p* and *d*, International Church Film Corp.)

Reference List of Producers and Distributors

Eastman Kodak Co.
Rochester, N. Y.
Harry Levey Service Corp.
220 W. 38th St., New York City
International Church Film Corp.
91 W. 23rd St., New York City
Kineto Co. of America
71 W. 23rd St., New York City

National Non-Theatrical Motion Pictures, Inc.
232 W. 38th St., New York City
Society for Visual Education
806 W. Washington Blvd., Chicago
University of Indiana
Bloomington, Ind.

(For Commercial Film Exchanges consult lists in previous issues.)

ATION
ts • 1⁰⁰ a Year

"SCHOOLFILMS" on NATURE-STUDY

Each film a delightful
life-story in picture form

Toads

1 reel

Wasps

1 reel

The Mosquito

1 reel

The Monarch Butterfly

1 reel

**Samia Cecropia—
the Giant American Silkworm**

1 reel

Pond and Stream Life

2 reels

DELIVERY WILL BE MADE ON DATES SPECIFIED

Terms of Rental:

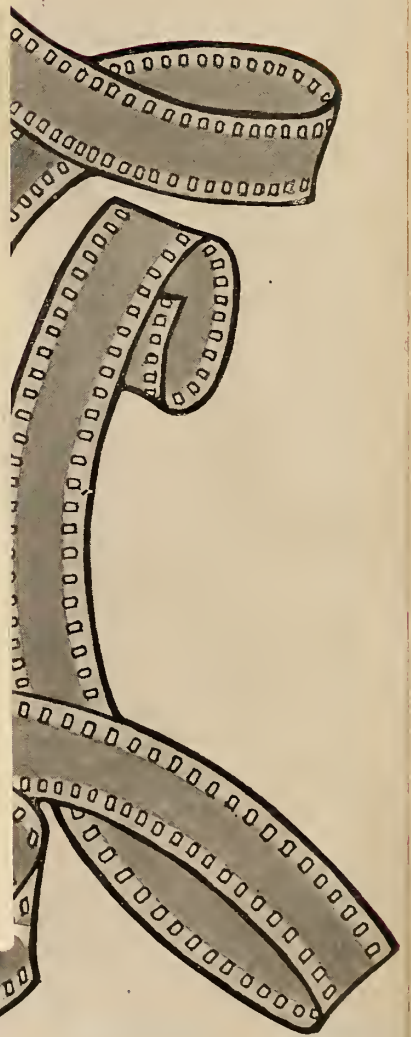
For a single day's use—per reel \$3.50
For 2 to 4 days' use—per reel, per day . . . 3.25
For one week's use—per reel 15.00


All films printed on NON-INFLAMMABLE STOCK, standard width

*See these films at the Chicago
N. E. A. Meeting—Booth No. 299*

Society for Visual Education, Inc.

806 W. Washington Blvd. . . . Chicago
220 W. Forty-Second St. . . New York City





SPENCER
"DELINEASCOPE"
 Model "O"

**RIGID IN
CONSTRUCTION**

**LIGHT IN
WEIGHT**


**SIMPLE TO
OPERATE**

Equipped with the SPENCER PATENTED TRANSPOSER— a unique device for handling lantern slides that *leaves a convenient opening for pointing to any part of the slide*, is more easily operated than the ordinary slide-carrier, and produces results more nearly equivalent to those of the double dissolving outfit than have heretofore been accomplished by any single outfit.

This and other SPENCER products will be displayed at the Chicago Meeting of the N. E. A.—Booth No. 37.


SPENCER LENS CO., BUFFALO, N. Y.

70 FIFTH AVE.
NEW YORK



417 MARKET ST.
SAN FRANCISCO

MICROSCOPES, MICROTOMES, OPTICAL GLASS
ALL KINDS OF SCIENTIFIC OPTICAL INSTRUMENTS



"How We Secured Our School Projector"

(Continued from page 83)

pected that the feature program will make the machine self-supporting.

St. Paul, Minnesota

Pupils of the Central High School gave entertainments to raise funds for the purchase of their projector.

Syracuse, New York

A class of the North High School financed the equipment for motion pictures for the use of the school from the proceeds of various entertainments and class activities.

Topeka, Kansas

The boys of the Industrial School have secured through their own efforts a projector and are giving two public "pay shows" weekly.

Traverse, Michigan

The Superintendent of Schools, Charles L. Poor, is planning to equip all the schools of the city with portable projec-

tors from the proceeds of the high school lecture course.

Tuscola, Illinois

A school in Tuscola is making its projector earn its own cost after paying the first item of \$100. The first installment of \$100 is paid direct according to a plan offered by the Society for Visual Education. Educational films, such as "Niagara Falls," "Wasps," "A Citizen and His Government," "Waste Disposal in Cities," etc., and features like "Silas Marner," "Dombey and Son," "Snow-White," and "A Hoosier Romance," are lent to the school free of charge for four picture shows, the school making its own selection of subjects. Proceeds from these public programs complete the payment for a \$350 projector, which is a modern combination film-and-slide machine.

Vermillion, South Dakota

The University of South Dakota paid

for its projector by selling a number of tickets in advance for pictures to be put on after the arrival of the machine. Six tickets were sold for a dollar.

Washington Court House, Ohio

Two presentations of "Stop Thief" by the Forum Literary Society of the high school provided sufficient funds to buy a projector for the use of the school.

Weston, Iowa

Teachers of the Franklin School and ladies residing in the district of the school and adjacent to it took the first step toward accumulating a projector fund by giving a big chicken supper.

Xenia, Ohio

An afternoon and an evening recreational show are given each week in the auditorium of the McKinley School. Proceeds from the admission tickets, sold at 10 cents each, have paid for the equipment and furnished funds for film rentals.

A-B-C OF USING STEREOPTICON IN CLASSROOM

(Continued from page 77)

condensers, in which case there will be color fringes on the border of the white field; or you may have the light too far away from the condensers, in which case there will be a yellowish circle around the border of the light field. Now, being careful not to move the light to the right or left, or up or down, simply slide the light-carrying frame back and forth until there are no color fringes. Thus you will have a clear field of light.

A Home-Made "Testing Slide"

A very simple but highly efficient slide for testing focus can be made by framing a square of fine-meshed wire screen between two ordinary cover glasses, such as are used in making lantern slides, and binding together with strips of passepartout tape or binding paper.

Place this testing slide in the slide-holder and focus until the wire squares show up as clear, sharp lines. This is a simpler, surer process than trying to judge focus from the picture itself. Once you secure a perfect focus, remove the testing slide and proceed to project your pictures.

Some Simple Precautions That Insure Good Pictures

Before you present your classroom slides, always inspect your lantern to see that it is in good working order.

It is very necessary to see that your lamp is so adjusted as to give you a clear, white field on the screen before you attempt to show any slides.

When the projection machine is not in use it should be covered so as to prevent dust from accumulating on the lenses. Inspection of school lanterns which have been reported "out of order" frequently reveals dusty lenses which are responsible for reducing the illumination on the screen fully fifty per cent.

The lenses should from time to time be wiped with a soft old linen cloth, great care being taken not to scratch the surface of the lenses.

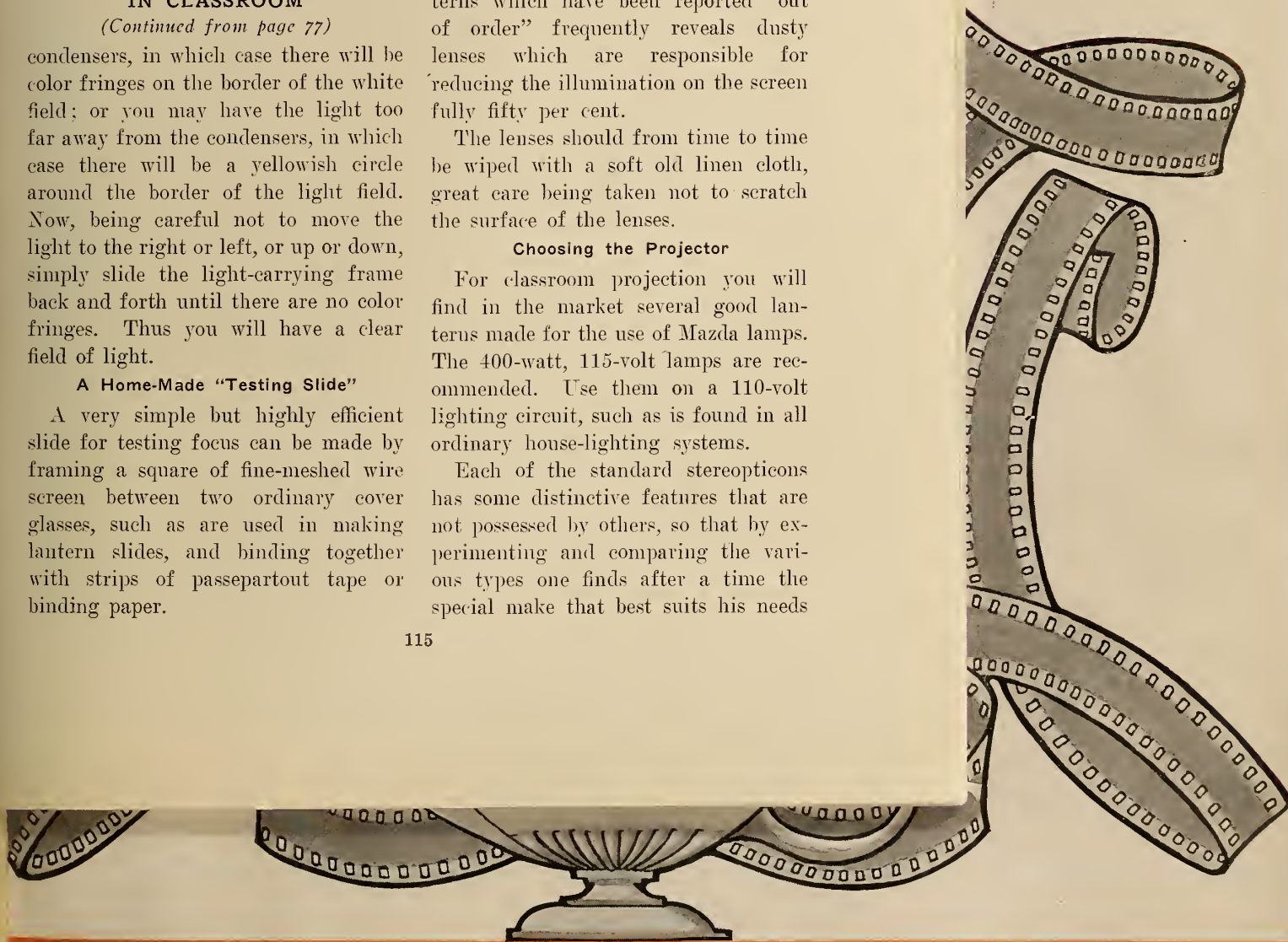
Choosing the Projector

For classroom projection you will find in the market several good lanterns made for the use of Mazda lamps. The 400-watt, 115-volt lamps are recommended. Use them on a 110-volt lighting circuit, such as is found in all ordinary house-lighting systems.

Each of the standard stereopticons has some distinctive features that are not possessed by others, so that by experimenting and comparing the various types one finds after a time the special make that best suits his needs

ATION

ts • 100 a Year



MOTION PICTURE USERS

Schools, Churches, Institutions, Manufacturers and other non-theatrical users, contemplating the purchase of motion picture machines and films, should obtain a booklet of valuable information which is supplied without cost by

The Associated Manufacturers of Safety Standard Films and Projectors, Inc.
Suite 1419, 440 4th Ave., New York City

THE "PROJECTASLIDE"

A Portable Stereopticon

Used by Chicago Board of Education, Chicago Board of Health, Physicians, Teachers and Lecturers

A compact, portable suit-case type—11 in. high, 6 in. wide, 17 in. long. Covered with high-grade leatherette; nickel trimmings; round sample-case handle. Adjustable legs at front for raising or lowering box to suit conditions.

Lamp-house and condensing lens-holder mounted rigidly in top corner of case. Lamp 400-watt, monoplane type.

Slide-holder track equipped with a centering pin to hold slide at perfect center. Projecting lens mounted on two sliding rods, allowing 8 to 20-inch focus. Convenient fibre knobs for adjusting lamp up or down and from side to side, as well as focusing objective lens. Condensing lenses easily removed for cleaning.

So constructed that the lecturer may use a small wire pointer through door at side of case, making it unnecessary to point to screen itself.

All metal working parts are japanned, rubber finish. Complete outfit includes cord, lamp, slide-holder, and case large enough to hold 50 slides. Weight, 14 pounds.

A \$150.00 machine—direct from factory to you—for \$65.00, saving jobber's, wholesaler's and retailer's profit.

Every machine sold on 10 days' trial. Satisfaction guaranteed or money refunded.

Levitan Manufacturing Company
1329 Washington St., Chicago, Ill.

and preferences. In the Chicago schools we have not used every type of stereopticon, but we have found a few types excellent for our purposes.

Assuming that all lenses, lamps and material used in construction are equal, then accessibility of parts and ease of

adjustment are points for consideration which each user should investigate carefully before purchasing. Slide-changing devices vary, and some forms have distinct advantages over others.

In some models, for example, the construction is such that by means of a hatpin or wire pointer inserted just in front of and against the slide in the lantern the teacher can readily point out the various parts of the picture on the screen without having to go up to the front of the room and stand between class and picture. The hatpin casts a shadow on the screen about the size of the usual pointer and has many advantages over the old plan of pushing a pointer across the screen. There are several machines that make it possible to adopt this convenient plan, among them the McIntosh Automatic "Sciop-ticon," the "Projectaslide," and the stereopticon attachment of the "Acme" S. V. E. Projector, all of which are made in Chicago. There are probably other makes on the market possessing this feature, but these happen to be machines with which the writer is personally familiar.

Encourage "Home-Made Slides"

In last month's article we offered some suggestions on the making of simple slides by boys and girls to illustrate their studies in various subjects. If pupils are given a chance to screen their efforts, they will struggle harder for improvement. At least, we know that artists who are allowed to hang their paintings in the Art Institute try hard to do creditable work for their friends to appreciate. It is a good idea. We approve of it. It's worthwhile. Try it with slides.

[In his fourth article, to appear in the March issue of VISUAL EDUCATION, Mr. Hays will discuss the correlation between lantern slides and motion pictures in connection with the visualized lesson.]

Free Nature Education

The School Service of the American Museum of Natural History

(Continued from page 69)

hanging the swinging doors on the saloons." Certainly the nature-study collections from the Museum helped to give Johnny a new conception of spring.

Conclusions

The experience of the past eighteen years has impressed me with the value of this method of visual education and has led me to certain definite conclusions:

First—An important factor in the success of the American Museum methods is the fact that the collections are *loans*, not *gifts*. If you really want a friend to read a certain book, lend him the book, do not give it to him. This has kept the Museum in close contact with the teachers; it has stimulated the teachers to use the material at a given time; it has keyed up the interest of the children to expect something new; and it has made it possible to meet the needs of several schools with the same collection.

Second—That the prescribed school curriculum makes such great demands upon the energy and time of teachers that nature-study aids should be presented in predigested form; hence the value of our descriptive booklets.

Third—That too many specimens in an exhibit confuse both teacher and children.

Fourth—That it is important to withdraw certain collections, modify others, and add still others to keep pace with changing requirements.

Fifth—That exhibits of a systematic

character illustrating orders, families, etc., are of relatively little teaching value compared with an exhibit showing animals in relation to man; for example, insect carriers of disease.

Sixth—That for practical teaching purposes the specimen which is not under glass and which can be handled and observed from all sides is so much more useful than a glass-covered specimen that it is worth while to take the added risk and expense of damage by handling.

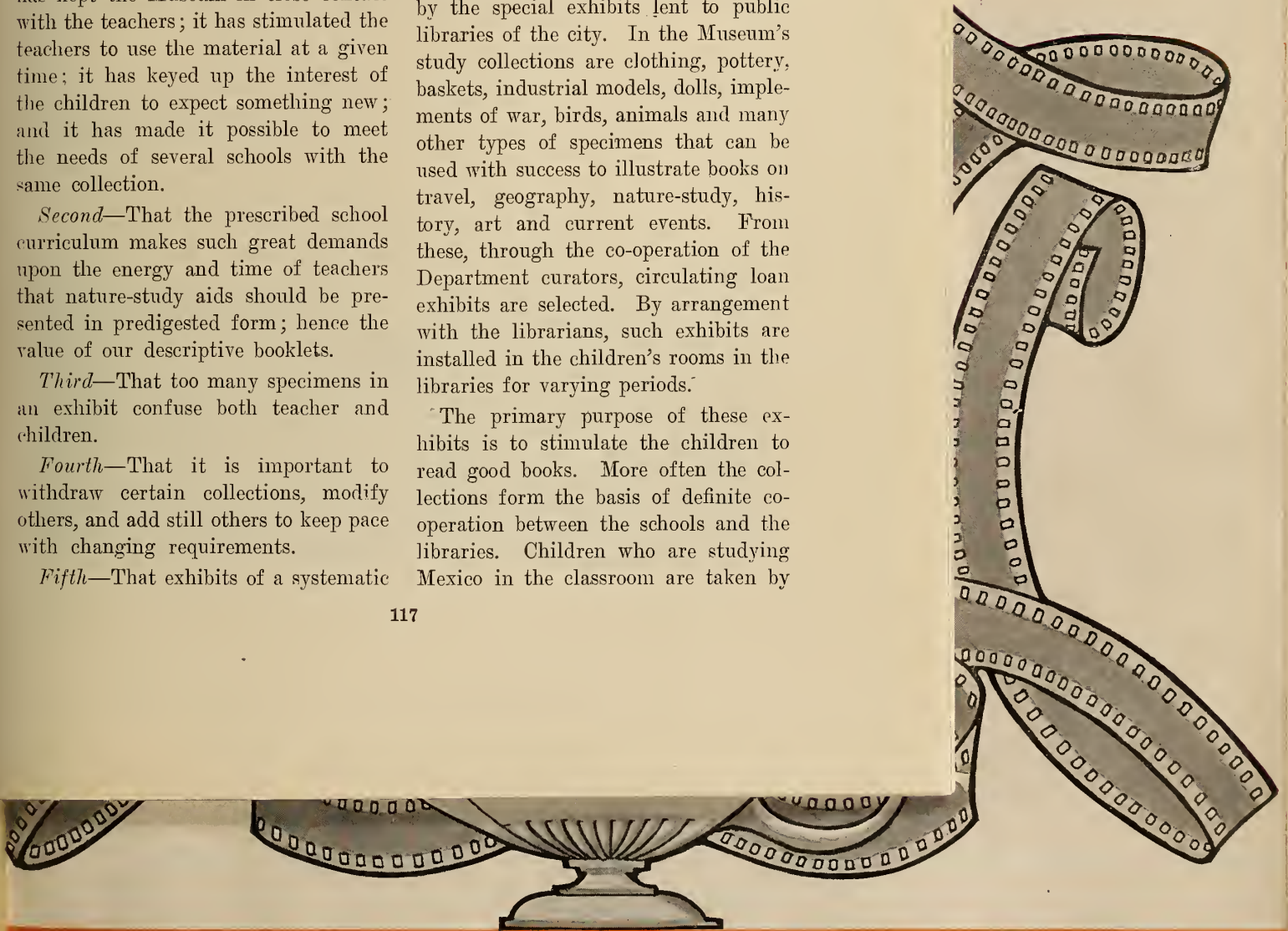
Loan Collections for Libraries

For several years the Museum's lending of nature-study material for school-room use has been well supplemented by the special exhibits lent to public libraries of the city. In the Museum's study collections are clothing, pottery, baskets, industrial models, dolls, implements of war, birds, animals and many other types of specimens that can be used with success to illustrate books on travel, geography, nature-study, history, art and current events. From these, through the co-operation of the Department curators, circulating loan exhibits are selected. By arrangement with the librarians, such exhibits are installed in the children's rooms in the libraries for varying periods.

The primary purpose of these exhibits is to stimulate the children to read good books. More often the collections form the basis of definite co-operation between the schools and the libraries. Children who are studying Mexico in the classroom are taken by

ATION

ts • 1⁰⁰ a Year

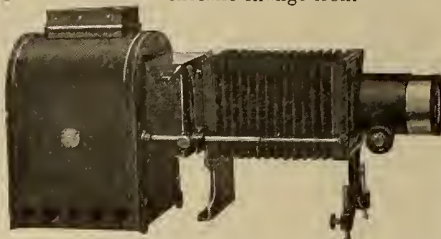


THIS ISSUE: *Playing the Health Game*

"McIntosh Lanterns are Honest Lanterns"

The Automatic Slide Changer

of the McIntosh Sciopticon gives you an
instant change from



one picture to the next, eliminates
eye-strain, and permits using a hat-pin
pointer.

This is only one reason why ninety-one
of these lanterns have been put into
Chicago schools in the last year.

Demonstration arranged—ask for circular.

McINTOSH STEREOPTICON
482 Atlas Block COMPANY Chicago

their teachers to the library, where they
examine the Mexican material loaned
by the Museum and read books describ-
ing that country; children who are
studying "The Song of Hiawatha" visit
the library to see Indian collections,

and boys and girls who are learning
the principles of design go with their
notebooks to copy the decorations on
Indian baskets and pottery.

This co-operation with the libraries
takes the Museum to the neighborhood.
Oftentimes, moreover, these exhibits
awaken the spirit of research, bring
both the child and his parents to see
the extensive collections at the Mu-
seum, and then send them back to the
library for further reading.

Exhibition Hall Teaching

Thus, through the circulating na-
ture-study collections sent to the schools
or through an exhibit in the library,
the school child receives his introduc-
tion to nature. Then comes the day
when the teacher takes him and his
mates to the "big Museum." Here the
class is met by staff members who ex-
plain the wonders of each exhibition
hall.

Advanced classes, groups from the
high schools and colleges, return again
and again for observation and study.
The well-labeled exhibition hall there-
fore becomes a great silent teacher—a
true exponent of Visual Education.

[A second article by Mr. Sherwood, dealing with the Lecture Service to Schools, which
constitutes the second important feature of the Visual Education Methods of the Ameri-
can Museum of Natural History, will appear in the March issue of this magazine.]



I SINCERELY hope that during the coming year the
powers that be, when they feel tempted to sacrifice
educational efficiency for economy (falsely so-called),
will bear in mind that—in the words of the Talmud—"by
the breath of the school children shall the State be saved."

—EDMOND G. A. HOLMES.



SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

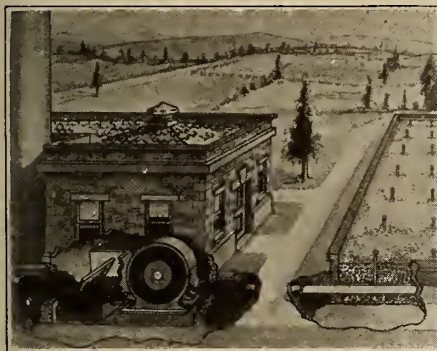
FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

The
Industrial Film Division
of the
Society for Visual Education
specializes in the production of high-class films for
Sales Promotion Propaganda
Advertising Welfare
Instructional Purposes

Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.
We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

**INDUSTRIAL FILM DIVISION
SOCIETY FOR VISUAL EDUCATION, Inc.**
806 W. Washington Blvd., Chicago



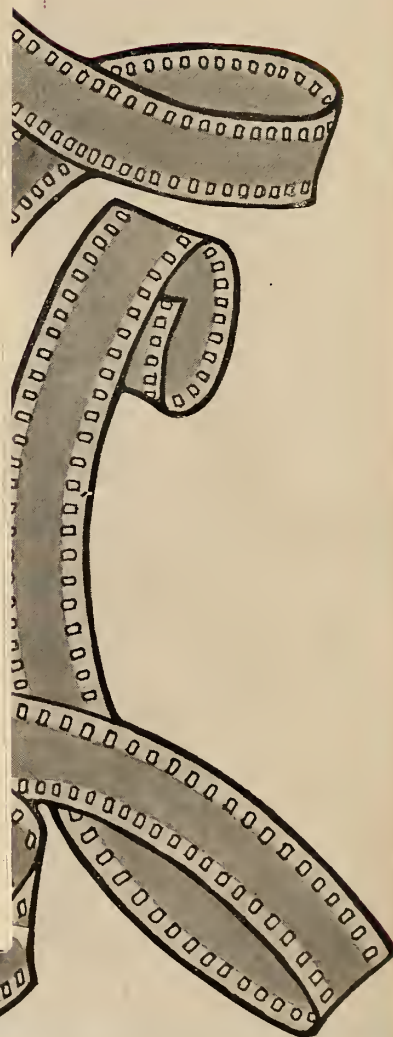
TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

French with its Importance, Prestige and Universality, stands today as a sign of Thorough Education and Refined Culture.

LE FRANÇAIS POUR TOUS

Subscription \$2.50 per year.
35c per copy.

The only French magazine published entirely in French in the United States of America.

ESPECIALLY ADAPTED FOR THE
TEACHER AND STUDENT
OF FRENCH.

LE FRANÇAIS POUR TOUS

Published under the auspices of the Alliance Française of Detroit, in order to bring about a better understanding between the United States and France, and to provide the American French teacher, French student, and all lovers of French with the best available French reading matter at a nominal cost.

Le Français Pour Tous
offers monthly the best French
Short stories Novels
Serials Travels
Anecdotes Cartoons
Illustrations Hints for the
Cooking recipes French Students
Jokes Actualities
French puzzles and contests
with prizes

Articles of especial interest to teachers and students of French contributed by prominent Professors of American Universities.

In each issue one of the most popular French songs published with words and music.

LE FRANÇAIS POUR TOUS PUBLISHING CO.

131 Junior College Bldg.
Cass, Warren and Hancock Aves.
Detroit, Michigan

VISUAL METHODS IN TEACHING HYGIENE

(Continued from page 74)

6. What are two important reasons why a living room needs to be ventilated?

Questions to Be Answered from Other Sources as Well

1. What are the parts of the skin?
2. What four different kinds of sensation does one get from the skin?
3. How does the skin help to regulate the body temperature?
4. Why should you bathe?
5. Which is better, to use perfumes to hide bad odors, or to take a bath and remove the source of the odors?
6. What are some good habits in caring for the skin?
7. Write in the appendix of your notebook the list of habits you and the class have agreed upon as the best ones to practice in caring for your skin.
8. Add in your notebook any other facts you have come upon, or paste in pictures that illustrate the proper care of the skin.

CLASSIFIED ADVERTISING

AGENTS AND SALESMEN

\$100 weekly possible through our exclusive representative plan. Fastest selling Ford accessory on market. "Masco" Splash Fender for front of Ford car eliminates rattling of front fenders, prevents radiator, lights and front of car from becoming mud-splashed, induces greater volume of air into radiator, reflects lamp's rays onto road in night driving, and beautifies lines of car, putting Ford car into higher-priced class. The Ford car being the only car without a splash pan protection, every owner wants this essential attachment. Any one can attach fender in few minutes. Retail at \$6.50. Send \$4.00 for agent's sample and contract application for territorial rights. Give references. Mayer Auto Accessories Corporation, Manufacturers, 333-335 Washington St., Buffalo, N. Y.

FOR SALE—SLIDES

SLIDES—SLIDES—SLIDES—SLIDES—MADE FROM anything and everything. S. Leon & Bro., Makers of Hi-Art Durable Lantern Slides for every purpose. 207 West 48th Street, New York.

FILMS

FILMS FOR RENT—Suitable for school, church and social uplift societies. One dollar per reel. Write for list. Sanor Film Company, Kankakee, Illinois.

Printing
and
Advertising
Advisers



*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

Day and Night
Service
All the Year
Around

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed it is our opinion you have not done your duty by your institution or yourself until you have learned about the service Printing Products Corporation gives and have secured prices.

*We ship or express to any point
or mail direct from Chicago*

Make a Printing Connection with a Specialist and a Large and Reliable Printing House.

You Secure From Us

Proper Quality—Quick Delivery—Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of "Visual Education"
what they think of our service and prices.*

PRINTING PRODUCTS CORPORATION

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

Artists—Engravers—Electrotypers
English and Foreign Languages

Polk & La Salle Streets

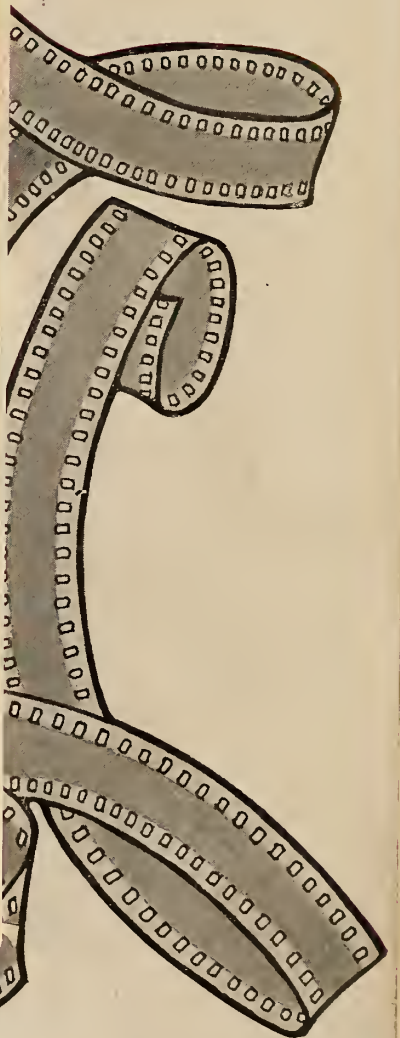
CHICAGO, ILL.

TELEPHONE
Wabash 3380
Local and Long Distance

IF YOU SAW IT HERE, PLEASE SAY SO

ATION

ts • 100 a Year



THIS ISSUE: **Playing the Health Game**

*In Portable Projection
Safety First Means Safety Film—*

EASTMAN SAFETY FILM

Furnished in two widths, $1\frac{3}{8}$ inches
and $1\frac{1}{10}$ inches, Eastman perforation.

Identifiable throughout its entire length
as safe by the words "Eastman" "Kodak"
"Safety" "Film" which appear in black
letters on the margin at ten-inch inter-
vals. .

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

VISUAL EDUCATION

ATION

ts • 1⁰⁰ a Year



The Motion Picture—Yesterday and Today

Yosemite as a Teacher

The Scrapbook in Health Education

The Films in Review

The Picture Hour

The Film Field

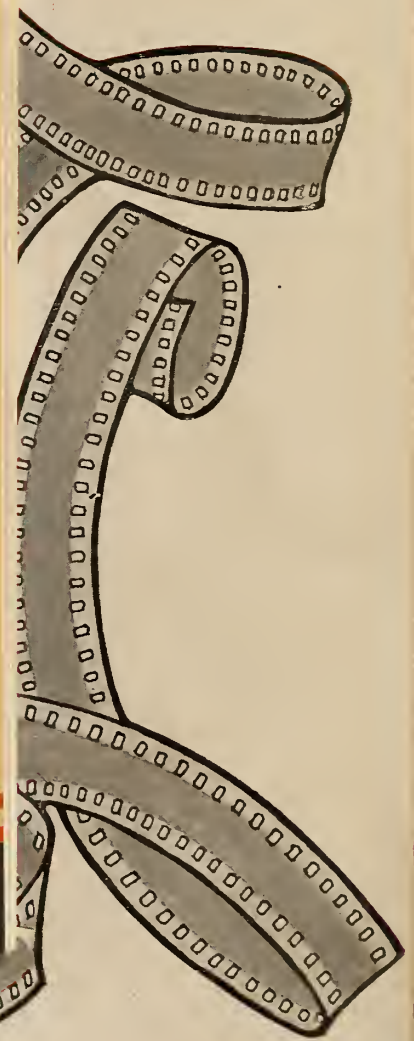
Voices from the N. E. A. Convention

Free Nature Education—The American Museum of Natural History

“Here Are Books”

Projection Queries and Answers

Visual Activities the World Over



ARCH 1922

Published by the
Society for Visual Education, Inc.

15 cts 1.⁰⁰ a year

THIS ISSUE: *Playing the Health Game*



© K. V. Co.

DELIVERING MILK—VENEZUELA

*Eagerness
to Learn
Comes with
the
Use of
Pictures*

Did you ever ask a boy to tell you about something he HAD SEEN?

Did you note the eagerness and enthusiasm of his response?

Why not put this spirit into school work by LETTING HIM SEE, each day, what he is learning about?

The Keystone System for Visual Education—six hundred stereographs and lantern slides—illustrates each day's work.

Write us for a demonstration

KEYSTONE VIEW COMPANY, Inc.

"Originators of Systematized
Visual Education"

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*

IF YOU SAW IT HERE, PLEASE SAY SO

Get Acquainted With Your Neighbor You might like him

You may join your neighbors in your own community, and in many others, in a nation-wide movement for

Man-Building
Business-Building and
Community-Building

This opportunity is offered you through associate membership in

THE BUSINESS SCIENCE SOCIETY

An organization of men and women who are studying natural laws related to human activity, and who believe in the *PRINCIPLE OF SERVICE*.

May we tell you more about it? Address

MARTIN L. ZOOK

Division of Associate Membership, The Business Science Society
77-79-81 Madison Avenue MEMPHIS, TENN.

THE AMERICAN MATHEMATICAL MONTHLY

OFFICIAL JOURNAL OF

The Mathematical Association of America

Is the Only Journal of Collegiate Grade in the Mathematical
Field in This Country

This means that its mathematical contributions can be read and understood by those who have not specialized in mathematics beyond the Calculus. The Historical Papers, which are numerous and of high grade, are based upon original research.

The Questions and Discussions, which are timely and interesting, cover a wide variety of topics.

Surveys of the contents of recent books and periodicals constitute a valuable guide to current mathematical literature.

The "Topics for Undergraduate Mathematical Clubs" have excited wide interest both in this country and in Great Britain.

The Notes and News cover a wide range of interest and information, both in this country and in foreign countries.

The Problems and Solutions hold the attention and activity of a large number of persons who are lovers of mathematics for its own sake.

There are other journals suited to the Secondary field, and there are still others of technical scientific character in the University field; but the monthly is the only journal of Collegiate grade in America suited to the needs of the non-specialist in mathematics.

Send for circular showing the articles published in the last six volumes. Sample copy and all information may be obtained from the

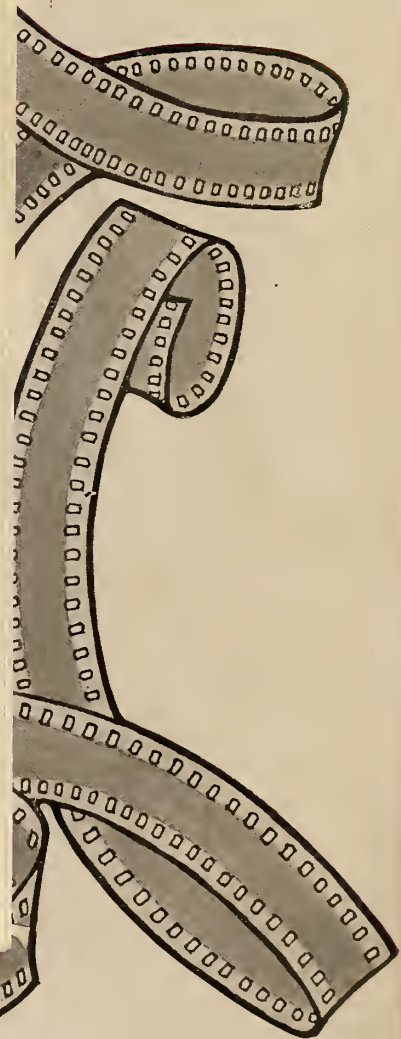
SECRETARY OF THE ASSOCIATION

27 King Street

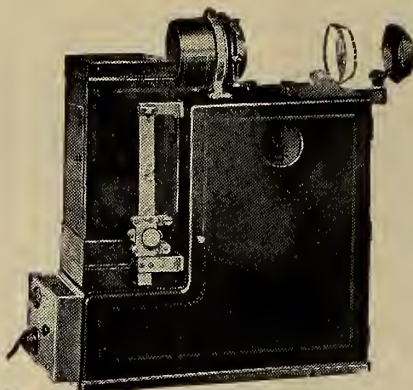
OBERLIN, OHIO

ATION

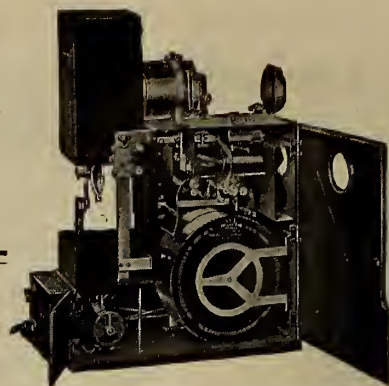
ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*



This cut shows the lamphouse in position for projecting motion pictures. Merely raising the lamphouse converts the machine in an instant into a stereopticon.



This cut shows the lamphouse in position for projecting stereopticon slides. While slides are being projected, the operator may be changing reels. Inside pilot light serves his needs.

The "ACME" S. V. E.

A Combined Film-and-Slide Projector

A SEMI-PORTABLE Motion Picture Projector that is superior to any other similar machine ever offered, with Stereopticon Attachments of equally high quality—a combination that offers *the ideal projector* to Schools, Churches, Community Centers, Y. M. C. A.'s, Institutions, Women's Clubs, Lecturers, etc. So simple to operate that a boy can conduct the showing.

ONE Machine That Does the Work of TWO

APPROVED

By the Underwriters' Laboratories



HOME OF THE "ACME" S. V. E. PROJECTOR

The largest plant in the world devoted to the exclusive manufacture of portable and semi-portable projectors

THE "Acme" S. V. E. is the ONE machine with which you can give a combination film-and-slide program without delays for readjustment. The transformation is practically instantaneous—you have only to move the lamphouse up or down.

Slides can be shown at any point in the film, to introduce new matter or give added emphasis to some particular feature. Slides can be thrown on the screen during the wait between reels. Thus there is no let-down to the interest and attention of the audience—an advantage that appeals to speakers and chairmen of programs.

**Some Other Features That Make the "Acme" S. V. E.
The Projector Without a Peer
For Classroom and General Non-Theatrical Use:**

Safety automatic shutter
Center-dividing metal film
magazines
All-metal (aluminum) case

Instant framing and focusing
Unequaled illumination
Motor-driven independent re-
wind

The "Acme" Portable Booth

For schools and churches where a booth may be necessary. Mounted on rubber-tired casters. So designed and proportioned that it can be taken from room to room, through any doorway, without taking apart. Compact and substantial. Made of 20-gauge iron, black enameled.

The "Acme" Auto Generator

Makes moving pictures possible where electricity is not available. Provides current for lighting home, grounds, church or school. Can be operated on any automobile—attaches to running board. No mechanic necessary. Weight, 50 lbs. Generates standard 110 volts; capacity, 1050 watts.

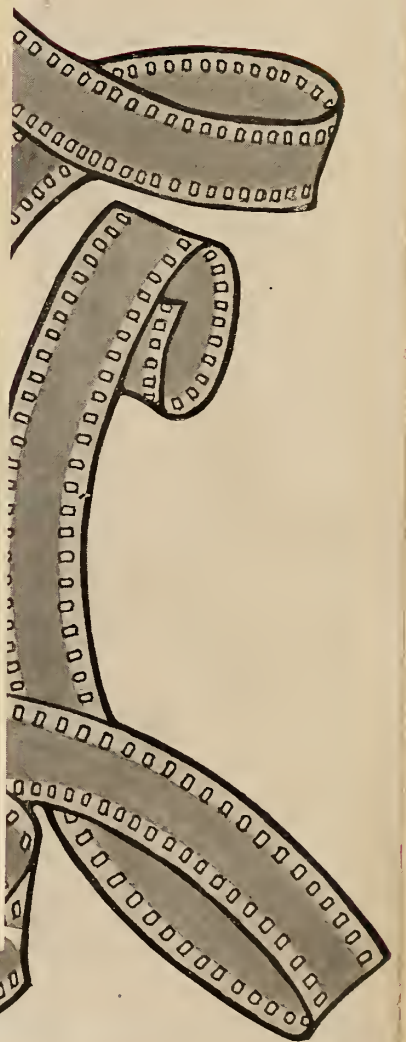
For prices and other information address

ACME MOTION PICTURE PROJECTOR CO.

806 West Washington Boulevard . CHICAGO, ILLINOIS

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

Every Teacher Is a Salesman

THE teacher "sells" education to more or less reluctant prospective "customers." He represents one of the most important "lines" in the world. Business thinkers tell us that the principles of Salesmanship underlie *all* practical human activities; that a knowledge of the methods of successful selling enables the minister to be a more efficient and successful minister, the lawyer a better lawyer, and so on. If this is true—and it is—it will *pay*, as well as entertain and interest and inspire you, to read "The Main Entrance to Successful Selling," as it has been called: **HOW TO SELL—AND WHAT**. In order to make it as easy as possible for you to get acquainted with this Popular Periodical of Selling Pep and Punch, we are making educators this

Special Introductory Offer

HOW TO SELL —and What—

3 Months for Only 25 Cents

We have another reason. We want you to know this unique Experience Exchange and Clearing House of Sales Information, because we want you to be in a position to tell ambitious young people about it when they come to you for vocational advice. *You* need to know about selling, you see, to guide *them* into this Profession of Golden Opportunity. Three months for 25 cents (stamps or coin) if you mention **VISUAL EDUCATION** and address

KABLE-SPALDING CO., Dept. 55—22 W. Monroe St., Chicago

Is This **YOUR** Copy of **VISUAL EDUCATION** That You Are Reading?

If not, don't you think it would be a real advantage to have your own personal copy coming to you regularly every month?

Then you would be sure of getting all the important information on visual training which every issue contains for you.

You would be sure of getting this information promptly.

You would have plenty of time to read it—in your own leisure and at your convenience.

You could keep your copies for future reference.

The Cost is Nominal

One Year, \$1.00 — Two Years, \$1.50 — Three Years, \$2.00

Address **SUBSCRIPTION DEPT.**

VISUAL EDUCATION, 806 W. Washington Blvd., CHICAGO

Visual Education

A MAGAZINE DEVOTED
TO THE CAUSE OF
AMERICAN EDUCATION

Rollin D. Salisbury, President - Harley L. Clarke, Vice-President
Forest R. Moulton, Secretary - L. M. Belfield, Managing Editor



Subscription \$1.00 a year.
Single copies 15 cents.
Back numbers 25 cents.
Published every month
except July and August.

VOLUME 3

MARCH 1922

NUMBER 3

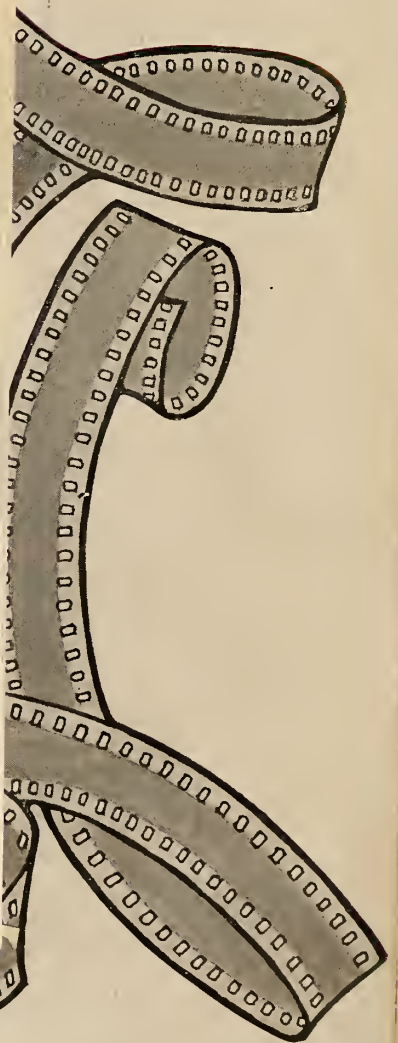
IN THIS NUMBER

The Motion Picture—Yesterday and Today.....	126
<i>Mary McKenzie French</i>	
The Scrapbook as an Aid in Health Education.....	132
<i>Georgie B. Collins</i>	
Free Nature Education—The Lecture Service of the American Museum of Natural History, New York City.....	138
<i>George H. Sherwood</i>	
Voices from the N. E. A. Convention.....	142
Vocational Items from Our Convention Note-Book.....	144
Visual Activities the World Over.....	146
Projection Queries and Answers.....	150
<i>F. R. Moulton</i>	
Yosemite as a Teacher.....	151
<i>A. E. Demaray</i>	
The Films in Review.....	154
Editorial Miscellany	158
The Picture Hour ("Storm Quiet").....	162
"Here Are Books"	164
The Film Field	174
New Visual "Tools" for the Educator's Kit.....	178

Published by the Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago 220 W. 42nd Street, New York

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

Visual Education

Copyright March 1922 by the Society for Visual Education, Inc.

The Motion Picture—Yesterday and Today

MARY MCKENZIE FRENCH

Society for Visual Education, Chicago

PART I

THE instinct to make people "see" what you yourself have seen is an instinct as old as the first gesticulatory narration. When primitive man yearned to perpetuate his emotions and his achievements, his soul found expression in picture-writing. And we find today that, after all the improvements of the ages, the picture is still the natural and fundamental form of expression. Thought itself may be called a process of mental visualization of the stimuli that come within our apperception. The mind is unconsciously and continually forming pictures that are vital in the acquisition and the application of information.

One can make no statement about the visual sense that is not utterly bromidic and obvious; yet, even though we are now living in "the age of the picture," few people realize its significance and possibility. And what it means to have the picture move is but weakly comprehended.

The Motion Picture "Just Grew"

It is a curious human trait that loves to concentrate its veneration and homage upon one individual. We seem to

feel that the act of bestowing our hero worship upon several recipients tends to negate the genuineness of the emotion.

Such must be the situation, however, in regard to the moving picture, for no one can say with exactness that such or such a man is its inventor. Rather is the motion picture an evolution to which many have contributed — some perhaps more freely than others—but for which no one alone is responsible. The laurel wreath of achievement cannot here be placed intact upon any one brow; it must be torn to pieces and its several parts distributed here and there if full justice is to be done. While it is true that various authorities upon this subject usually endeavor to acclaim some one particular man as the creator of the motion picture, it is also true that their opinion as to his identity invariably differs.

We Have the Motion Picture Because We Can't Stop Seeing

The underlying scientific principle upon which the entire structure of the motion picture is based is that of persistence of vision — the physiological



The "motion pictures" of Eadweard Muybridge

phenomenon which makes it possible to experience the visual effect of light for a brief fraction of a second after it has ceased to operate. The length of this period of persistence is now recognized to be from one-tenth to one-twenty-fourth of a second, the time being, of course, dependent upon the intensity, duration and color of the visual impression.

This inability to stop seeing instantly is variously explained. It may be the slow return of the brain-cells to their normal state after the stimulation, or it may be the time required for the optic nerve to convey a visual impression from the eye to the brain. This necessary delay of transmission results in a continued impression equal in length of time to the period required for the image to pass from the retina to the brain.

Consequently, if many pictures are presented in succession, the effect will

be that of a single continuous picture, provided the intervals between them are sufficiently short to keep the image from being visually effaced before the following picture appears. Thus, if a number of pictures of an object in motion, each one picturing a slight successive phase of the movement, were presented, the action itself would apparently take place.

When a Circle Is Not a Circle

This principle of the persistence of vision is demonstrated by the child when he swings a flaming stick through the air so that the glowing point maintains the illusion of a complete circle. It is illustrated for us in the revolutions of the blades of an electric fan, which appear to be a solid disc when in motion, although when at rest they are seen to be entirely separated. A flash of lightning appears to the uncomfortable observers to last for a small eternity, whereas in reality it darts

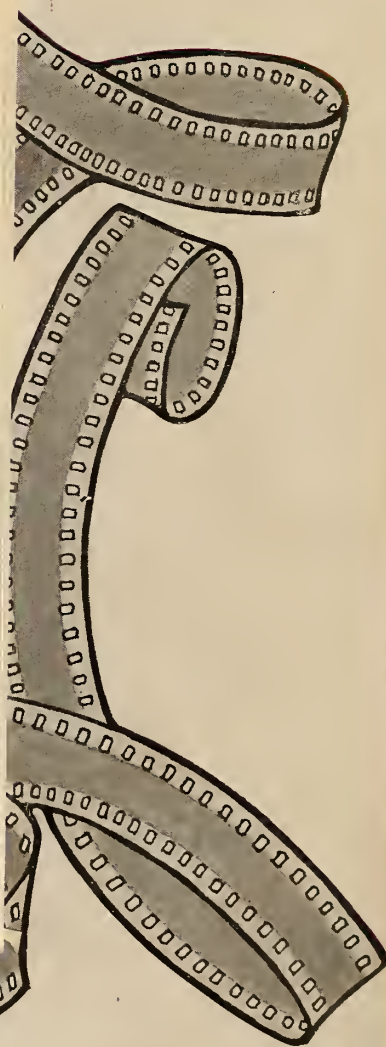


The pictures which proved that at a certain point in its stride a race-horse has all four feet clear of the ground

Courtesy of the University of Pennsylvania.

TION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

across the horizon in a space of time no greater than .0001 second.

The fact that there was such a matter as persistence of vision was recognized as far back as 65 B. C., when Lucretius makes the first known written reference to the phenomenon. Much later, in 130 A. D., Ptolemy of Alexandria commits himself in writing as follows: "If a sector of a disc be colored, the whole will appear of that color when rapidly revolved, and if the sector be variously colored at different distances from the center, the discs will appear ringed." The Arabian philosopher, Alhazen, comments upon the principle of persistence of vision about 1100 A. D., and Leonardo Da Vinci mentions it about 1500; but none of these thinkers did more than give it a passing thought. Not until within our own day was grasped the significance of the fact in connection with the picture.

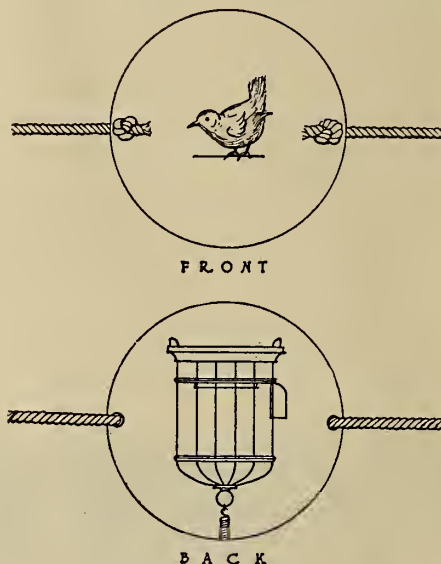
Entertainment the Purpose of the First Crude Devices

The first attempts to employ this principle in any device were of course very crude, being confined solely to efforts to amuse. One of the earliest toys known to be based upon the persistence of vision was called the Thaumatrope and ap-

peared in 1826. It consisted of "a card having images on each surface, inverted with respect to each other, and these images (when presented in rapid alternation by the revolution of the cord) both persist and so appear simultaneously and continuously present in the field of vision." This ingenious device compelled a pathetic bird continuously to enter an empty cage or trapped an inane rat until such time as the enthusiasm of the beholders might wane. It is claimed that this contrivance was designed in an idle moment by the scientist, Sir John Herschel. Be that as it may, it was a toy that had considerable vogue even as late as 1867, when Claudet suggested a card of much greater thickness in order to produce a stereoscopic effect.

Great Minds Run in the Same Channel

In 1882, two men working independently of each other produced very much the same device in which pictures of objects in consecutive phases of movement were used to create the illusion of continued motion. They were Stampfer in Germany and Plateau in Ghent. Running true to the predilection for long names manifested in those early days of experimentation, Plateau



THE "THAUMATROPE" OF 1826

When these two figures are pasted back to back in an inverted position and the cord is twirled, the bird will suddenly present an appearance of feverish activity. Try this primitive motion picture for yourself.

Courtesy of Reeland Pub. Co. From "The Story of the Moving Picture," by B. J. Lubschez.

named his instrument the Phenakistoscope, while Stampfer applied the term Stroboscopic Discs to his invention.

The Phenakistoscope is described as "consisting of two circular discs revolving on a common shaft. The front disc had several phases of a moving object painted upon it, the different drawings being arranged radially near the outer edge. Behind this disc was a larger one with radial slots in it corresponding in number and position with the drawings on the front disc. When the Phenakistoscope was held before a mirror and the discs rotated, the observer watching the reflected images of the front disc through the slots of the back one received the impression of continuous motion. This contrivance illustrated in a very rude manner the principle of the intermittent shutter. As the slots in the disc rotated before the eye, the intervening space cut off both light and pictures while the latter were changing places, the persistence of vision connecting one image to the following one."

Before his death Plateau made some improvements in his machine, using a transparent disc and artificial light. Blindness, however, came to handicap him in his efforts and to prevent him from "seeing" the results of his labors.

Invention Begets Invention

The year 1834 brought before the public the Dacdaleum of Horner, sometimes called the Zoetrope or Wheel of Life. This invention, which achieved unusual popularity, was long used as a source of amusement. It was very simple in construction, consisting of a revolving hollow cylinder mounted upon a vertical spindle. Around the inside of this cylinder, usually made of paste-

board, were pasted successive scenes of moving objects. Vertical slits equally spaced were cut in the side of the cylinder and the drawings, usually ten or twelve in number, were arranged to correspond with the spacing of the slits. When the cylinder was rotated rapidly, the slits and the wall spaces continually exposed and cut off the pictures, in the same manner in which the shutter of a modern projector operates. The Zoetrope has been called the most primitive form of cinematograph. Rude in form though it was, it recognized the principle of the persistence of vision somewhat in the manner in which a modern projector recognizes it.

The Praxinoscope was a somewhat more complicated form of the Daedaleum, differing from it in that small sloping mirrors were placed around a drum in the center of the cylinder. When the cylinder was rotated, the pictures pasted around the inside were reflected in the mirrors. The illusion of motion in a machine such as this was most entrancing to the observer, who was delighted to see a clown, for instance, rapidly perform over and over again a few simple antics. All these early instruments employed pen-and-ink sketches, for the art of photography was as yet in too undeveloped a form to make photographs either available or desirable.

Mention might be made in passing of a most elementary method of making pictures move which was dignified by the appellation of Kinegraph. A number of pictures portraying different phases of movement were all bound together in a small book, the pictures being presented to the eye in rapid succession by the very simple process of

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

VISUAL EDUCATION

drawing the thumb over the edges of the leaves. A schoolboy trick, you may say; yet there you had "pictures in motion."

Inventors Were Not Yet "Seeing"

During this entire early period of investigation, there was none who had the great vision of what could be done with the moving picture. All were laboring in the dark, handicapped by the limitations of the photographic art, by the lack of equipment, and by the fundamental disadvantage of not realizing the ultimate end of their efforts.

That there was coming to be, however, a slight conception of the marvelous possibilities in making pictures move is evidenced in the phrases of an

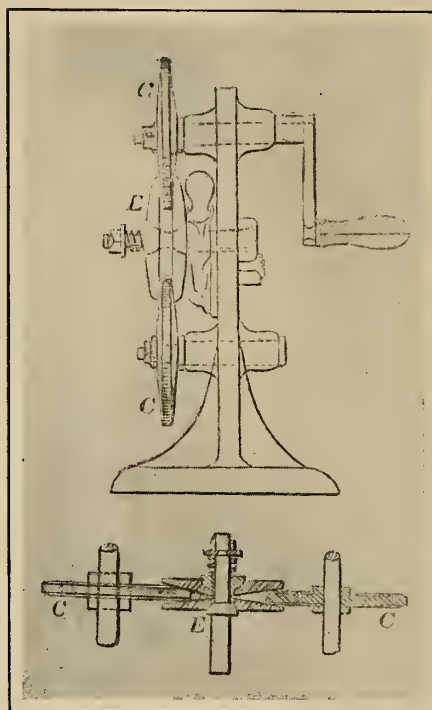
application for a patent granted in 1864 to a Frenchman, Ducos by name. He states:

"My invention consists in substituting rapidly and without confusion to the eye not only of an individual, but when so desired of a whole assemblage, the enlarged images of a great number of pictures when taken instantaneously and successively at very short intervals. . . . The observer will believe that he sees only one image, which changes gradually by reason of the successive changes of form and position of the objects which occur from one picture to the other. Even supposing that there be a slight interval of time during which the same object was not shown, the persistence of the luminous impression upon the eye will fill this gap. There will be, as it were, a living presentation of nature and . . . the same scene will be reproduced upon the screen with the same degree of animation. By means of my apparatus I am enabled specially to reproduce the passing of a procession, a review of military maneuvers, the movements of a battle . . . the grimace of a human face, the passage of clouds in stormy sky, etc."

While Ducos certainly had the vision, he was never able to put his ideas into practical operation, and others reaped the glory that might have been his.

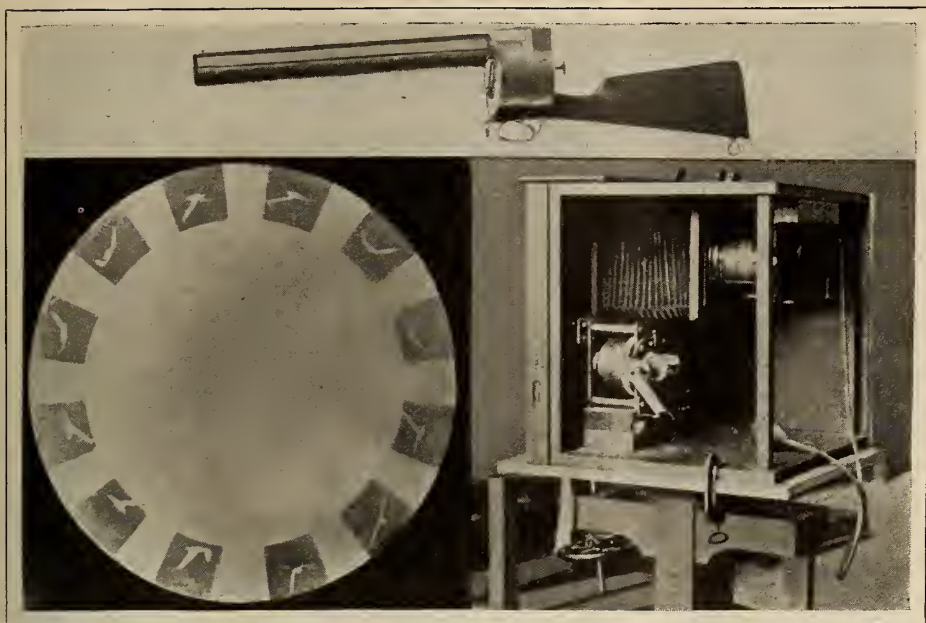
The Lantern Wheel of Life

It apparently never occurred to those who struggled early in the field to project their illusions of motion so that many could view them at one time. About this time, however, a man by the name of Uchatius, working in Vienna, perfected an apparatus to throw the pictures of the Stroboscopic Discs on the wall. Using a stationary transparent



THE KINEMATOSCOPE

The diagram submitted in 1861 by Dr. Coleman Sellers of Philadelphia, with his application for a patent.



DR. MAREY'S FAMOUS EXPERIMENTS IN CINEMATOGRAPHY

The "photographic gun" of 1882, showing (above) the gun itself; (left) the plate with consecutive pictures of a gull flying; (right) the mechanism of the chronophotographic apparatus for taking consecutive pictures upon a single glass plate.

Courtesy of J. B. Lippincott Co. From "Moving Pictures: How They Are Made and Worked," by Frederick A. Talbot.

disc upon which were the pictures, and a stationary disc carrying objective lenses, one in front of each picture and arranged to focus on the same spot of the screen, he added a mechanism containing an illuminant which was rotated behind each picture in turn. Thus there were not only pictures in motion, but also projection, elementary as it was. Discarding the cumbersome scientific appellations so much in vogue, Uchatius was content to label his apparatus the Lantern Wheel of Life.

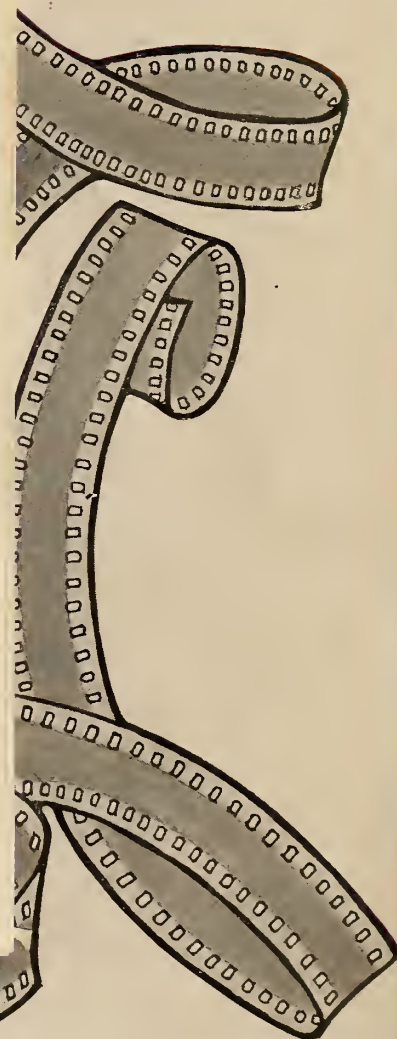
Many other variations of these devices were presented to the public from time to time—devices not of great importance in themselves, but very significant as indicating the steady trend of experimentation along this line.

Among them may be mentioned color tops, the Optic Wonder, the Anorthoscope, the Mutascope and the Viviscope. Each functioned in its turn much as the coral functions—relatively unimportant in itself, but serving as a foundation for further operations.

An American Genius

What is called the first patented invention to produce the illusion of objects in action was registered in 1861 in Washington by an American, Dr. Coleman Sellers of Philadelphia. Some authorities do not hesitate to call him the originator of the motion picture because he worked out and stated so definitely the scientific principles upon which the moving picture of today is

(Continued on page 169)





A scrapbook page that tells its health story in few words. The hektograph supplied the pupil with the outlines, but the facial expressions and the captions represent the pupil's original work.

The Scrapbook as a Visual Aid in Health Education

GEORGIE B. COLLINS

Director of Health Instruction, Malden, Mass.

THE scrapbook! What a host of memories come trooping in! Those scrapbooks of childhood — gaudy, crowded, much-bedaubed affairs in cambric, made with infinite labor and pains by childish hands; or elaborate, wonderful books of the bought-in-the-store variety, which once or twice came at Christmas time and were treasured through many years.

The appeal of the scrapbook to the child is, I believe, almost universal. He takes pride and joy in its making, and he treasures it in its completion.

In a certain class last year, through unfortunate circumstances, the completed scrapbooks did not come in for inspection until near the end of the school year, making it impossible to return them before vacation. With the long summer and its eventful days intervening, one might have expected those fifth-grade children to forget the scrapbooks made in the year gone by. Not so! As soon as they returned to school they demanded their scrapbooks "for keeps," and those pupils whose books we wanted to retain for exhibi-

tion were clearly torn between pride in contributing their work and longing to possess the books for themselves. They asked anxiously, "May we take them home first?" and being assured of this little taste of ownership, decided that it was pretty fine, after all, to have made a scrapbook so good that "teacher" wanted to save it.

Health Education Problems

But beyond the fact that the making of a scrapbook interests and pleases the child, does it have real educational value? What are its advantages? What are its limitations? How is it directed, and how is it made?

This article aims to answer the above questions in regard to the use of scrapbooks as a visual aid in Health Education particularly, although many of the suggestions herein would be applicable to other parts of the curriculum as well.

The problems of Health Education are rather different from those of education in the regular branches of instruction, because education in health is of no avail unless it secures a reaction in the life of the child, which means that we must fire the child's imagination to the attainment of an ideal—the strong, efficient, beautiful body—and secure his faith in proper health habits as the means of gaining that ideal. We must keep his ideal and his health habits before him constantly enough to insure their becoming a real part of his life. All this demands dramatic appeal, vivid impressions and constant repetition, with unflagging interest.

The Personal Appeal

Recently a splendid picture of Roosevelt was presented to each school in Malden by the Rotary Club. The pres-

entation of the picture was an impressive occasion. A first-grade teacher used the opportunity to teach her children much of Roosevelt's life, of his struggle for health, and of his remarkable achievement. It was a heart-stirring message to at least one little boy in her group. Roosevelt became his ideal, he had faith in the means by which Roosevelt achieved strength, and every day sees that little chap vigorously doing his exercises before an open window, practicing the laws of health just so far as he knows them. You should see the swell of his little chest, the brightness of his eye, and the proud bearing of his sturdy frame, to realize how vital all this still is to him, although that first incentive came many weeks ago.

This incident gives a type of strong reaction which is rather extraordinary, I believe, and which is doubtless in part a result of many other contributing factors in the classroom. If this boy's interest is not constantly stimulated, will he continue his effort to achieve the strength of a Roosevelt? Probably not; the case is rare where a child receives sufficient stimulation at one time to carry him through prolonged endeavor. He loses sight of his ideal, he "backslides," he becomes lazy, he has other

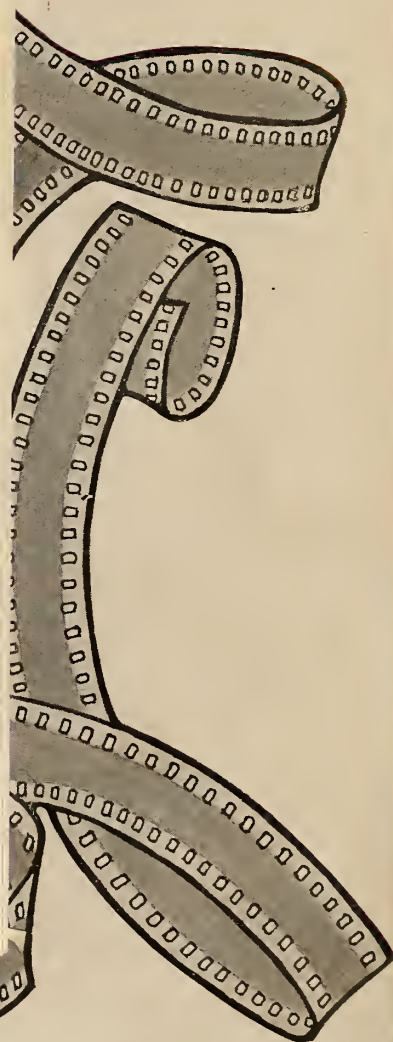


A HEALTH NOTE

How another school boy visualized the lesson he had been learning—"Drink milk and be healthy."

TION

ts • 100 a Year





It was largely "scrapbook magic" that in the case of David transformed rebellion against school health measures into an intense interest which manifested itself in this clever poster and in a cheerful offer to submit to the imagined tortures of the dental clinic.

interests crowding in, and for countless similar reasons he fails to hold to a determination which gripped him strongly at the start.

Scrapbook Valuable in Sustaining Interest

I believe that right here is a very important function of the scrapbook in Health Education—to hold the child's interest in a subject over a long period of time. It does that partly through the child's *doing* and partly through his *seeing*. The child who doesn't love to hunt up pictures and cut and mount them is unknown to me. Week after

week he keeps at it, always with new things coming along, and he finds it a source of never-ending interest. Why? Because he is *making* something—something he can see, something good to look at, something all his own, something he is proud to exhibit. It is a thing in which he can succeed to some degree—an extremely important item, since the child delights in doing that in which he sees actual results.

The Case of David

How far-reaching in its effects such an interest may become when combined with other forces in the classroom, is shown in the case of David, a young incorrigible in the sixth grade. The nurse had attempted to have his dental

work done at the free clinic, but he was antagonistic and offered such hindrances in the way of bad behavior and failure to keep appointments that he was finally dropped.

When regular instruction in health began, David was not conspicuous for some time, and the way in which he finally came into the limelight is rather astonishing in view of his indifference to school work in general and to health work in particular. He had an intense interest in the scrapbook, which could not be satisfied by the mere production of pages suggested by the teacher, and

accordingly he set forth to express his own ideas. The accompanying illustration shows the result. Behold David clad in football togs, surrounded by fruits and vegetables and bread and milk! And behold his own inscription, "This is *Me* and What I Eat to Make a Touchdown!"

Immediately after this production, the nurse was approached by a new David who politely asked whether he might not go to the clinic and have his teeth filled.

Pictures Drive Home the Point

The strength of visual impressions is an important factor in the scrapbook, for "things seen are mightier than things heard." When one of our fourth - grade boys had mounted a picture of a husky boy eating cereal, he placed beside it a picture of the Quaker Oats man bringing in a package of oatmeal, and wrote under the pictures some such legend as "Oh, Boy, here's your breakfast!" He will not soon forget that oatmeal is a very good breakfast for a growing boy.

The Force of Repetition

Not only does the scrapbook supply visual impressions and serve as a stimulus to sustained interest, but it gives opportunity for the constant repetition of those impressions in a way of which the child never wearies. Our sixth - grade pupils, in their lessons on "Foods," have been preparing pages for their scrap-

books to show "A Good Breakfast," "A Good Dinner" and "A Good Supper"; or if the family has its largest meal at night, the pages are prepared in order of breakfast, luncheon and dinner.

All through these many weeks spent on the study of foods, each child is searching magazines and papers for pictures. He has learned that fruits and vegetables are an important part of diet, and in this search for "foods pictures" this truth is again and again brought home to him. When he pastes a delicious green salad on his sheet for dinner, or a bright shiny orange for the



The search for appropriate pictures for such a page as this clinches in the child's mind the essential elements of a well-balanced, nourishing meal.

beginning of breakfast, he has a distinct impression of the place of these foods in diet. Aside from the actual preparation of a meal — which is in most places impracticable—or the use of wax food models—which are expensive and not usually available — what method can more deeply impress the child with the fact that fruit, cereal, bread - and - butter and milk make a good breakfast, than for him to hunt up his pictures, cut them out, and mount them with inscriptions to explain the page?

Incidental Values

In addition to giving repetition and visual impressions on the actual subject matter as taught, there is much incidental teaching in the scrapbook. For example, in these diet sheets the child learns that doughnuts and coffee as a breakfast will not go, and that spaghetti, potatoes and white bread furnish too much starch for one meal. In this same way many a child is getting an impression of a well-laid table and a happy meal-time, for they like to add decorations with pictures of an attractive dining room, a social tête-à-tête over the teacups, or father, mother and children gathered happily around the family board.

These illustrations of scrapbook work



*Jack and Gill went up the
hill*

And down without a tumble

For children that eat vegetables

*Are strong and never
stumble*

THE DANCING VEGETABLE MEN

The outline of the illustration was furnished by the hektograph, but the verselet was added by a fourth-grade pupil.

have already indicated another advantage of the visual method in that things can be shown plainly in their relation to one another. Our fifth grades, for their projects on "Food," have prepared pages to represent the different kinds of food. It is difficult to make the children understand that the potato is rather unlike the other vegetables, and that it belongs to the very

starchy foods, which we call "Go Material." When the child has pasted the potato on a page with pictures of cereal, bread, macaroni and spaghetti, the fact is established for him.

Children Eager for Visual Self-Expression

The child's desire to express facts visually is quite apparent in his expression of original ideas and in his making of pictures quite uncalled for by the teacher. The accompanying picture of the girl who likes milk and the girl who doesn't was drawn by a fourth-grade boy, and was picked up from the floor by his teacher after an unsuccessful effort to send the message to his chum. A sixth-grade boy expresses his ideas concerning coffee by mounting on the same page colored magazine cut-outs contrasting the sickly-looking girl who drinks coffee and the rosy-cheeked girl who drinks milk. He adds the pertinent question, "Which one is you?"

Many other visual aids, such as posters, blackboard devices, etc., accomplish similar ends; but the real advantage of the scrapbook over these is that it is a prolonged activity, and therefore sustains interest longer, provides more repetition, and supplies greater variety.

Limitations and Proper Field of Application

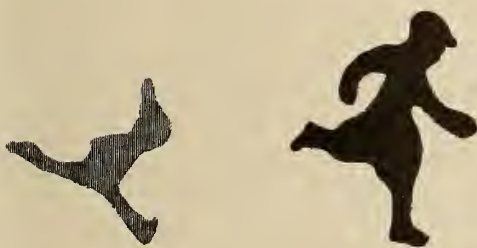
What are the limitations of the scrapbook? First, it is a supplementary activity; it cannot take the place of classroom teaching. Indeed, the child cannot intelligently prepare much of the scrapbook material until he clearly understands the facts involved.

It is also an activity with which the teacher must keep close contact, for the child left to himself has lost the chief reason for making the scrapbook, viz., that it should be seen by his teacher and classmates. In a class last year where we were hard pushed for time, we had a very marked example of this fact. We gave much attention to the first part of the book, and when other duties pressed hard upon us, we tried to have each child go ahead with his own work without our giving any class time to the project. The result you will guess. Only a few enterprising children really completed their scrapbooks. The others showed little

accomplishment after we left them.

Again, it is an activity not suited to every grade. In the first two, perhaps the first three grades, the child's experience is in individual activities rather than in one big undertaking; and it seems to me, therefore, that it is quite as well in these lower grades to have a variety of projects which are not condensed or collected in scrapbook form. In the higher grades, as in the seventh and eighth, the individual scrapbook may not be feasible, either because the pupils feel themselves too old for it or because time for such work cannot be spared in the already crowded curriculum. This is an excellent place for the composite scrapbook, the class scrapbook, an expression of the team spirit in work and play which is prominent at this age. The middle grades, fourth, fifth and sixth, are unquestionably well adapted to the use of the individual scrapbook.

It does take time. But the teacher who manages efficiently can reduce that time to a minimum by requiring that all selection and cutting of pictures shall be done at home; by using pupils in the preparation of hektographed copies; by organizing the class to care for such details as paste, paper and pencils; by training the

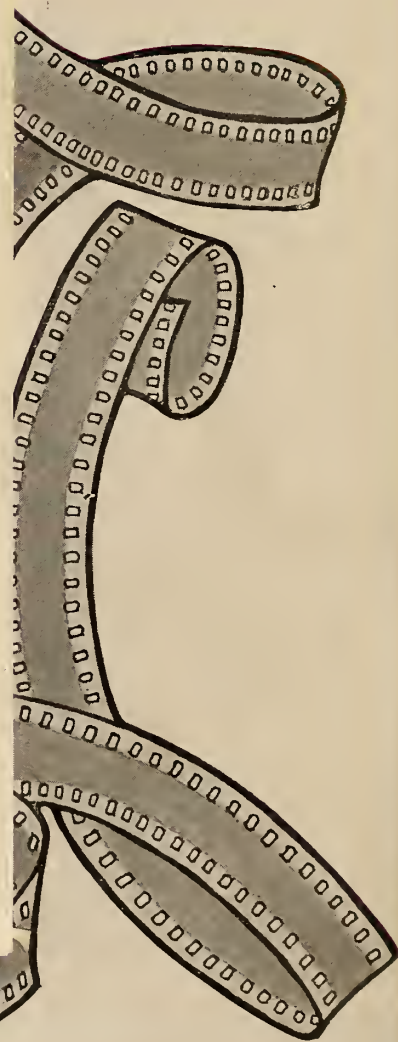


It is hard for Cold-in-the-head to catch a healthy boy, if he keeps himself warm and dry.

COLD-IN-THE-HEAD PERSONIFIED

In the scrapbook the boy is colored brown and the pursuing imp a vivid red. Each child writes his own caption.

(Continued on page 172)





Helping blind children to "see" how Mr. Eskimo lives

Free Nature Education¹

The Lecture Service of the American Museum of Natural History, New York

GEORGE H. SHERWOOD

Curator, Department of Public Education

PART II

THE second important feature of the visual education methods of the American Museum of Natural History is its lecture service to schools. Annually upward of two hundred of the city schools are reached and more than 100,000 school children come within its influence.

This branch of the Museum's Free Nature Education began in 1904 with a series of five lectures illustrated with lantern slides and given in the audi-

torium of the Museum. Their success was instant and their continuation was strongly urged by the teachers, in spite of the fact that they were given after school hours.

For several years these lectures were delivered only at the Museum. Later, because of the difficulties of transporting large numbers of children through the city streets and because we realized that many parents could not afford the necessary carfare, courses of the lectures were given in some of the schools. At the present time the system has been so

1. The first installment of this article appeared in the February issue of VISUAL EDUCATION.

developed and extended that our lecture service includes annually two long series of lectures at the Museum; two series in three local lecture centers; special lectures on request at the Museum and in certain schools; lectures for student teachers in the Training School for Teachers; the lending of lantern slides to teachers of New York City, and special instruction for the blind.

Purpose of School Lectures

As in the case of the circulating nature study collections, the underlying purpose of all these lectures is to *supplement* the classroom work of the teacher—not to *replace* it.

The individual lecture, therefore, is usually general rather than specific in its scope and is to be regarded as a series of picture stories around a common theme, and not as a well-balanced presentation of one subject. Our aim is to treat each lecture so that it may be used either as an introductory lesson to a general topic to which the teacher may refer again and again in the classroom, or as a general review after the class has finished its study. From the lecturer's standpoint these lectures are often unsatisfactory because of their diffuse character, but we must always keep before us their primary purpose; namely, supplementing the teacher's work.

Visual Features of Lectures

The subjects are chosen with special reference to the prescribed courses of study and deal particularly with topics in geography, history and natural science. All are illustrated with colored lantern slides and also, for some years past, with motion pictures. The slides are selected from the Museum's general

series, which now numbers 31,000 slides. The motion pictures for the most part are rented from regular distributors, although the Museum possesses some films of its own and is preparing others for this purpose. The lecturers are members of the staff of the Department of Public Education, all of whom have had practical pedagogical training, or members of the Museum's general scientific staff with an especial aptitude for talking to children.

Whenever practicable the subject matter of the lectures is correlated with the exhibits in the Museum. For instance, if the lecture is on the "Early History of New York City," reference is made to the Indians of the Eastern Woodlands Hall, where the life of the Indians of Manhattan is depicted; if the subject is "Physical Geography of the United States," reference is made to the Halls of Geology and to the Halls of the Great Vertebrate Fossils, where early earth history has been visualized. A lecture on "Hiawatha's People" will be correlated with the Mammal and Bird exhibits, as well as with the Indian Halls.

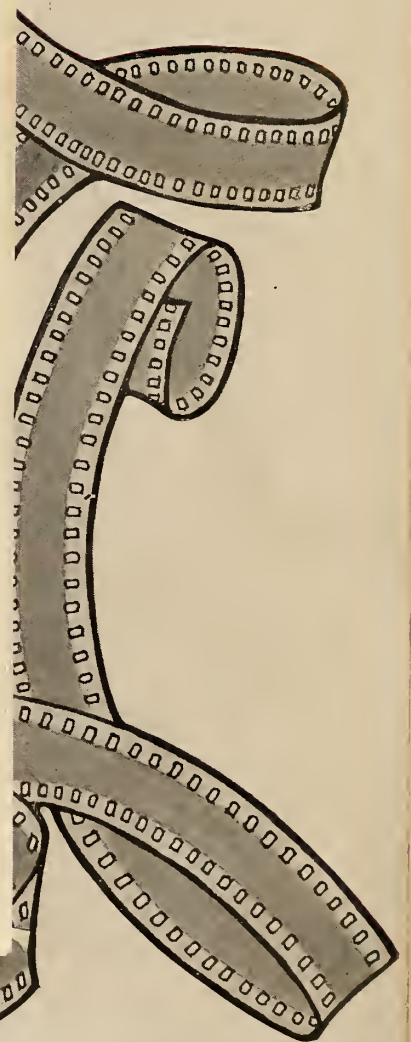
A typical course of school lectures at the Museum consists usually of six lectures on World Geography; six on the Early History of America; six on Industries of the United States; and six on Natural History. The topics under these headings are varied from season to season in order to maintain the interest of teachers as well as pupils.

As to Attendance

Two weeks or so before the opening of our course a printed announcement and calendar of lectures is mailed to the principal of every school in the city.

ATION

ts • 100 a Year



With this is sent a sheet of reservation coupons which are filled out by the various teachers, asking for reservations for the number of pupils they desire to bring to a lecture. By this method the prospective attendance is known and overcrowding is prevented.

The lectures are given in the afternoons after school hours, and attendance is wholly voluntary for both teachers and pupils. This means real sacrifice on the part of the teachers, and those who avail themselves of these opportunities are deserving of the highest praise for devotion to their profession.

Special Lectures

In addition to these regular courses of lectures for school children, members of the Museum staff lecture at the New York Training School for Teachers, with the purpose of presenting to

the student-teachers certain background topics on which they are especially well qualified to speak. The result of this relation to the Training School is far-reaching.

Many special lectures are given to visiting classes, especially from the high schools. Twice a year during Regents' Week, the examination period, the biology classes from several of the high schools are brought to the Museum, given a lecture on some biological topic in the auditorium, and then sent into the exhibition halls with a questionnaire for further study. Thus for these classes, as well as for groups of Boy Scouts, Girl Scouts, Woodcrafters, etc., the Museum exhibition halls serve for great indoor field trips.

Local Lecture Centers

A recent extension of the Museum's lecture service was the establishment of local lecture centers. A few years ago the restriction of the general transfer on the street-car lines and its final abolition, together with the fact that many parents could not afford to pay the children's carfare to the Museum, led to the adoption of the plan of giving these lectures in the school. The idea was to select a centrally located school which had proper facilities and invite schools of the neighborhood to send their classes to this school.

For some time we have been maintaining three such centers: in the Washington Irving High School,



LEARNING ABOUT "SHOOTING STARS"

Crippled children from the public schools enjoy a visit to the Museum.

Public School 64 Manhattan, and Public School 42 The Bronx. The center at the Washington Irving High School approaches the ideal. One of the high school teachers makes all arrangements with the local schools. On the appointed days the Museum lecturer goes to the center and there addresses pupils from the neighboring elementary schools. Thus these children have the benefit of the lectures without the long and hazardous journey to the Museum. There is no doubt in our minds that the local lecture centers should be extended.

Lending of Lantern Slides

The latest development of the Museum's visual education work is the loan of lantern slides to teachers for classroom use. This work was undertaken in 1915 under a special grant from the Board of Education of the city, and its almost phenomenal growth bids fair to make it the most extensive, if not the most important, of the visual instruction methods of the Museum. Through its expeditions and researches the Museum has accumulated many thousands of negatives and photographs, from which our lantern slide collection has been built up. New material is being added continually. These slides are lent free of charge to any teacher in the New York Public Schools. Museum messengers deliver the slides to the schools and call for them at the end of



STUDYING THE EARTH

These globes, specially prepared for teaching the blind, are lent by the Museum to any city school where blind children are being taught. By difference in texture, as well as by relief, the character of the earth surface is demonstrated.

the loan period—one week. Printed catalogs and order forms are sent out to teachers or are available on request. Teachers may order from the catalogs by letter or telephone, or may make personal selection of slides by calling at the Museum. Through this service it is a very simple matter for teachers to have in their classroom the best illustrative material.

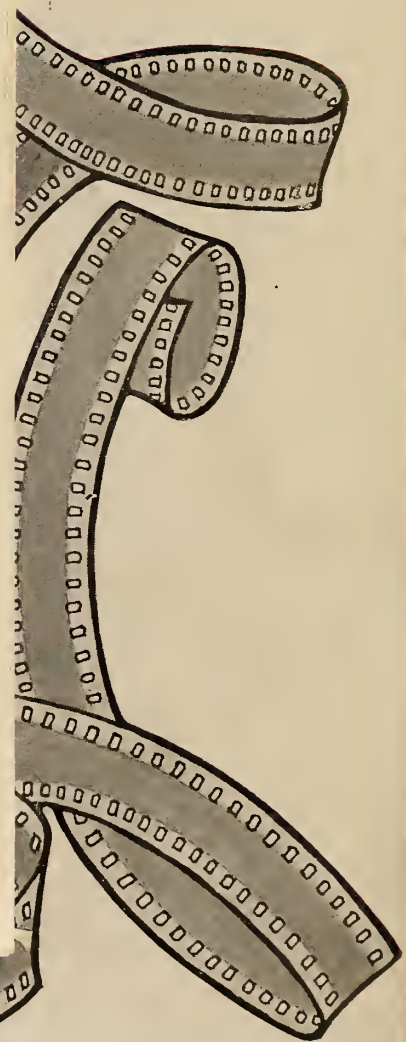
Prepared Lectures

Realizing the many demands on teachers' time, we have further anticipated their needs by preparing a series of lectures illustrated with from sixty to eighty slides and accompanied by a suitable manuscript, which enables the

(Continued on page 180)

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

Voices from the Convention

WITH the Department of Superintendence holding thirteen general sessions, and other N. E. A. departments responsible for a total of forty-one educational meetings during the few days of the Chicago convention, it is readily understood that anything approaching a complete and satisfactory account of proceedings must be left to the official report. The following paragraphs embody merely a few interesting high-lights caught by the flying pencil of the harried reporter.

"The Outlook for Cultural Education"—Frank Aydelotte, President Swarthmore College.

"We are at a crisis in the history of civilization, when the outlook for liberal education is a very important thing to speak about. We are in an age that knows how to make war better than the world ever did it in the whole of civilized existence—in an age which is learning slowly and with difficulty how to make peace. In order to make peace you must have imagination, be able to understand the other man's point of view, express to him clearly your own point of view, co-operate with him, preserve good-will between yourself and him.

"Now, internationally we are having a hard time to do that. . . . We are having a still harder time to do that in industry. There was never a time when labor was better organized to fight their employers, nor employers so well organized to fight their workmen—never a time when either side could make such effective use of their immense resources. . . .

"That is the problem of liberal education. It is not the problem of fine shades of esthetic enjoyment for the few. It is the great fundamental problem of democracy, which is the art of living together. . . .

"One encouraging thing in the outlook at the present time is precisely this demand for the liberalizing of technical training which is heard on every hand and which is going to be heard more and more. Another is the demand that is being heard that our schools should teach our national ideals. . . . Another encouraging feature is just this interest in the ideals of the human race that is reflected in the popularity of such a history as that written by Wells and many other volumes of the same kind. People are beginning to realize that civilization is not a group of little nations fighting each other and cutting each other's throats. There is a great battle against wickedness, ignorance and wrong against which every nation of the world must unite.

"We must try to co-operate, understanding each other's ideals, getting that kind of outlook on life which will enable us to talk together and reason together instead of fighting together. And when I talk about English literature as having a value, it is precisely this, that it gives people a common ground on which to argue. That is the reason we have strikes, wars, irreconcilable

political battles; because we cannot reach a common basis of argument. When we get that it can be settled—not until then."

* * *

"Educational Determinism"—William C. Bagley, Teachers College, Columbia University.

"A little more light for the common man this year, next year, a hundred years from now, and the battle for humanity, for democracy and for brotherhood is won."

Granting that intelligence measurements have already rendered great service and will render still greater in the future, Dr. Bagley attacked vigorously the tendency to act on the assumption of some advocates of intelligence testing to the effect that education can do little or nothing to influence the original capacities of human beings.

* * *

"The Ideals To Be Achieved by Public Education"—John J. Tigert, U. S. Commissioner of Education.

"We have not yet learned to teach citizenship to our boys and girls. We must teach respect for the flag, we must teach the principles of our government and American history in a far more effective way. Americans are intensely patriotic, but through ignorance they render less respect to their flag and their country than many other peoples.

"If we can not teach these old-fashioned virtues of honesty, justice and decency along with modern thought, then we would better dismantle our splendidly equipped institutions and return to the old log school house. In the words of a famous evangelist, 'I would rather have my boy in heaven learning his A-B-C'S than in hell reading Latin and Greek.' We would better have citizens who have character and little erudition, than citizens whose knowledge is a peril to society.

"The man who discovered that surgical instruments should be sharp made an important discovery, but much more important was the discovery that they should be sterilized. Better to have a dull knife that is clean, than a sharp one that is foul."

* * *

"The Next Steps in Financing Our City School Program"—Herbert S. Weet, Superintendent of Schools, Rochester, N. Y.

"Not until the family pocketbook is opened as freely for the children's schooling as it is for laces, chewing gum and phonograph records, will America have a race from which may spring Aristotles.

"While it is true that our public schools and all other functions of government must be supported out of the annual income of the people after the necessities and luxuries of life have been met, it is equally true that, taking the nation as a whole, this margin for the luxuries is large and capable of being modified. . . .

"When we take into consideration the relatively enormous amount of money spent by our people for the luxuries of life, we are forced to believe that, by and large, we have not come to the point where the value of public education is fully sensed, nor where anything like real sacrifices are being made to support such reduction."

* * *

"Can Education Be Made to Produce Socialized Character?"—Edward A. Ross, Professor of Sociology, University of Wisconsin.

"The formula for making boys and girls that are fit to live with is as well understood by sociologists as the making of soap by manufacturers; the formula must be extended to the vast majority of America's youth, instead of to but the favored few.

"First comes supervised play—team and antagonistic play. It establishes the child in facile co-operation with his fellow and teaches him self-control and how to keep his temper. A good sportsman is a valuable pattern.

"Next comes co-operation in school work, the co-operative investigation of subjects, and the fitting together of results. After this, the establishment of ideals. The Boy Scout movement is a clever example of this. It rivets ideals of conduct to the boy's instincts of outdoor life. Ideals should be established by the examples of great men—Lincoln, Washington, William the Silent—and how they met situations."

Following in order is the analysis of various kinds of group life—the family, the school, the city, and the rest—by the child. It should be made clear to the child that group life requires certain forms of behavior from the individual.

"Religion is the crown of the formula. Discipline, ideals, association with great men, are not enough. Religion furnishes a philosophy of goals. It gives a comprehensive outlook upon life. It should come to the child at the age of 17 or 18."

The evil environment of childhood, such as "gangs," factories for the young, some families, and certain "movies," must be eradicated and something legitimate substituted.

* * *

"Adapting a School Plant to the Curriculum"—Charles L. Spain, Deputy Superintendent of Schools, Detroit, Michigan.

"The platoon system has reduced Detroit's half-time army from 20,000 pupils in 1920 to 7,000 in 1922, largely by economical adaptation of present buildings to the enlarged curriculum. . . . By building additions to a number of old schools containing auditoriums and gymnasiums, Detroit is solving

its problems. One-half the pupils occupy these rooms, libraries and laboratories, while the remaining half use the schoolrooms proper, shifts being made twice an hour."

* * *

"Report on Changes Needed in the Elementary School Courses"—Katherine D. Blake, Principal School No. 6, New York City.

"The peaceful existence of nations lies in the hands of the geography teacher. . . . She must become the foremost factor in bringing about a peaceful brotherhood and solidarity of nations by training the youth to appreciate the friendly characteristics of races rather than their objectionable differences. The geography period should be the joy period of the day."

* * *

"The Need of a National Organization for Educational Service"—George D. Strayer, Professor of Educational Administration, Teachers College, Columbia University.

"More than half the teachers in the public schools of the United States have inadequate education and professional training. If education is to have the status, the dignity and the influence in our federal government necessary for the establishment of national leadership we must have a Secretary of Education."

* * *

"The Rural School of Tomorrow"—Mary E. Sabin, Principal of the Consolidated Rural School, Chazy, New York.

"The little one-room country school cannot immediately disappear, but every American child deserves an education in its proper environment. The really good rural school has an auditorium, a music room, a library, laboratories, swimming pools, and rooms devoted to health service."

* * *

"The Ideals to Be Achieved by Public Education"—Will C. Wood, State Superintendent of Public Instruction, California.

"American schools are guiltless of the greed of the profiteer and consequently are obtaining less money, considering the purchasing power of the dollar, than they were getting a decade ago.

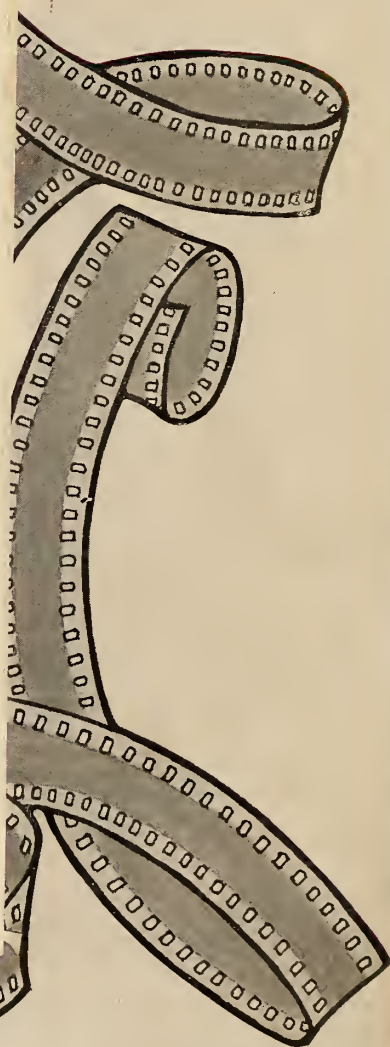
"As a matter of fact, the public is getting more from its schools in culture, efficiency and good citizenship than it secured by the expenditures of 1911, but this increase is due to the devotion of the great body of teachers to the cause of a better America. It will be dangerous, though, to impose still further upon the missionary spirit of the teaching body."

* * *

The newly elected officers of the Department of Superintendence are: *President*, John H. Beveridge, Superintendent of Schools, Omaha; *First Vice-President*, Frank W. Ballou, Superintendent of Schools, Washington, D. C.; *Treasurer*, Ira B. Bush, Superintendent of Schools, Erie, Pa. (re-elected); *Member Executive Committee*, Payson Smith, State Superintendent, Massachusetts.

ATION

ts • 1⁰⁰ a Year





Vocational Department

Items from Our Convention Note-Book

Address of the Chairman—Wilbur H. Bender, State Director of Vocational Education, Des Moines, Iowa.

"Sixteen lessons in vocational training given to a shop foreman have been known to save the concern for which he works as high as \$200,000. . . . The community pays for adult education either by furnishing vocational education opportunities or by losing in efficiency."

* * *

Report of Progress of Vocational Education Committee—Adelaide Steele Baylor, Federal Agent for Home Economics, Washington, D. C.

"Vocational education decreases the mortality in the grammar school. Many boys and girls will stay in school a few more years if they can receive definite occupational training. . . . Vocational education is not being over-emphasized."

* * *

"The Outlook for Commercial Education"—Frederick George Nichols, Director of Commercial Education, Harrisburg, Pa.

"There has been discussion as to whether we should have a two-year course or a four-year course. I don't believe in either. The thing I want to advocate is the unit-year education, in which each year of the continuous program from the 8th to the 12th, and even beyond, shall be complete in itself so far as these three commercial education objectives are concerned: namely, that each year shall contain (1) an element of vocational business training suited to the capacity of the boys and girls in that particular year and adapted to their requirements so far as employment is concerned; (2) that each year shall contain general business education to supply or make up for the lack of practical office experience; (3) that each year shall contain an element of citizenship training to furnish background for general cultural and specific vocational training."

* * *

"Fundamental Problems in Vocational Home-Making in the High School"—Anna E. Richardson, Chief Home Economics Education Service, Federal Board for Vocational Education, Washington, D. C.

"Vocational education has certainly introduced into our work a new constant: vocational efficiency, rather than merely going through nine months of school. . . . We cannot hope to cram this work into an ordi-

nary high school program and call it vocational education. We must be willing to modify our programs, to make a sympathetic place for this work."

* * *

"Differentiation Between Vocational Industrial Education and General Manual Training or Industrial Arts"—Thomas E. Johnson, State Superintendent of Public Instruction, Michigan.

"In education, three aims are ordinarily recognized: the cultural, the social and the vocational. Most of the subjects taught in school may partake of all three aims or of either. Manual training in its inception was presented largely with the cultural aim. It soon became extremely vocational in its aim. Today we recognize it as having three distinct aims: cultural in the first six grades; prevocational in the upper grades; vocational in the high school."

* * *

"How Far Are We Justified in Spending Money for Adult Education?"—Frank P. Graves, State Commissioner of Education, New York.

"Only 70 per cent of our children of school age are in school up to the age of 14, and only 40 per cent have managed to get through the elementary schools. Only about 8 per cent of our children finish the high school, and about the same proportion stay in school until 18. In other words, out of every twenty-five young people who enter the school, only ten finish the elementary work and only two finish the high school. Three-fourths of our young people have never gone beyond the fourteenth year, and considerably less than one-half of the young people between 14 and 20 are in school today."

"This is a serious situation—far more serious when we stop to think of the statistics given us in connection with illiteracy and alien inhabitants. Only one adult in four is able to read an English newspaper and write an intelligent letter. . . . There is little doubt but that the great influx of our illiteracy comes from the South and Southeast of Europe and Asia. According to Dr. Robert F. Yerkes, in an article by Mrs. Cannon in the February *Atlantic Monthly*, 47.3 per cent of the people in the white draft proved to be in the range of what we ordinarily call morons—that is, they had a mental age of between 7 and 12 years."

"Is the problem serious? . . . What a load for Uncle Sam! How can we relieve him? Let us discuss that before we discuss what kind of education to give these adults when they arrive. Being a plain school-master, I say unhesitatingly that we must close the door to this influx of illiteracy of European nations. Uncle Sam has the theory that he must train all, but he is not bound by any law of humanity or the brotherhood of man to take up and do the work that is evaded by the other countries.

"After we have managed to get rid of these recruits to our illiteracy average, there will still remain tremendous withdrawals from our schools that we ought to discount if possible. There are still 30 per cent of our young people who do not get beyond the fourteenth year and 60 per cent that do not finish the elementary school. Something must be done to strengthen the drag-nets that are intended to catch those that violate or ignore the law.

"Think how much we added to our school population when we brought in this industrial and commercial work, and established our trade schools and our technical high schools. That work needs to be extended to a very large degree to those that have mechanical intelligence and do not find an appeal to their abstract intelligence—those who have to go out early and earn a living. We should find some way of somewhere having this industrial element correlated with the work in English, history and science.

"There are certain people so lacking in intelligence that the high school as now organized is no place for them to be. . . . We must arrange, by means of long courses and short courses, work in the evening, work that will meet the needs and abilities of each

one of these adults, work they are best adapted to taking for the sake of society. As far as I am concerned, I am confident that it should be done irrespective of the funds we offer up for the education of children of school age. We must inevitably offer for those adults that need leadership, for those that are to conserve our traditions, for each and every one, these opportunities for education they may have missed. We must put into our budgets a separate item, if necessary. I say, without reservation, that our provision must not only be adequate, but generous."

* * *

"Recent Educational Progress in the United States"—John J. Tigert, U. S. Commissioner of Education.

"Nothing promotes educational progress in a general way better than legislation affecting our schools. Most outstanding was the passage during the War of the Smith-Hughes Act for Vocational Training. The Federal Board for Vocational Education was organized in August 1917. The act was not a war measure; it was intended primarily to stimulate vocational education, and its effect was immediate and general. Within a period of ten months every state in the Union had made formal acceptance and by appropriating money on a fifty-fifty basis had entered into an agreement with the federal government to promote vocational education. Since last summer the Federal Board has nothing to do with soldier rehabilitation; since this has been done we can now really hope for progress along the lines on which the board was originally intended to function. More recently there has been added responsibility for rehabilitating those injured in industry—a more permanent phase of the work that grew out of soldier rehabilitation."

National Society for Vocational Education

The Society held its fifteenth annual convention in Kansas City, Mo., on January 5, 6, 7. One general session was devoted to

the part which special organizations have had in the development of vocational education. Among the organizations considered in this connection were the Chamber of Commerce of the United States of America, the American Paper and Pulp Association, the United Typothetae of America, the American Farm Bureau Federation, the National Retail Dry Goods Association and the American Bakers' Association.

Agricultural education received special attention. One session in the agricultural section was devoted to occupational analysis and courses of study for agriculture; one session to the training of teachers for agriculture of secondary grade; another to the project method in agriculture; and a fourth to agricultural education outside high school courses.

Commercial education was strongly stressed, four full programs discussing various phases of this topic. There were also section programs on industrial education, part-time and continuation schools, teacher training in industry, and industrial rehabilitation.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



Visual Activities

The World Over

ALABAMA

Birmingham. The Better Films Committee is providing wholesome and entertaining programs for children every Saturday morning. A letter sent by Supt. C. B. Glenn to the principals and supervisors of the city when the plan was initiated read as follows:

"This is the initial effort of this committee to furnish clean, wholesome and entertaining pictures to the children of Birmingham, and it merits the hearty support of all teachers and patrons of the public schools. You are therefore requested to give publicity to this announcement and to co-operate in every way with the undertaking.

"The Ensley High School orchestra will furnish the music, and members of the Better Films Committee, assisted by teachers of the Powell school, will act as chaperones. The admission charge for children will be 10 cents. Parents or friends may accompany children if they desire."

AUSTRALIA

Sydney. The Methodist Mission of Sydney, one of the most active of the religious organizations in Australia, is providing moving picture enter-

tainment for the public on Sunday afternoons at the Lyceum theater. At the first performance "Sentimental Tommy" was the principal attraction. The theater was crowded before the program began and eager crowds lined the street in their attempt to gain entrance. It is said that other churches throughout Australia are preparing to follow the example set by the Methodist Mission.

BELGIUM

Brussels. It is reported that 150,000 feet of educational moving picture film are now being used in the Brussels schools in conjunction with lectures on special subjects.

DISTRICT OF COLUMBIA

Washington. Use of the motion picture theater known as the Opera House is available on Monday evenings to any organization desiring to use it for benefit purposes. The manager deducts the film rental from the gross income and then divides with the organization on a fifty-fifty basis. The Presbyterian Church used the theater recently and sold over a thousand tickets, netting between fifty and sixty dollars.

FRANCE

Paris. Members of the film industry have recently combined to initiate a movement to aid the industry, taking into account the educational and artistic phases of the question, as well as the matter of legislative assistance. Before the war France had a thriving cinematograph business, but since 1914 she has not only lost her hold on foreign countries but has been overwhelmed by the importation of foreign films. America is, of course, her most formidable competitor, but Italy and Germany are also making headway.

It is now proposed to place a heavy tax on foreign films, with French films paying little by way of taxation and pictures of an educational character going entirely free. The charges heretofore imposed upon the cinema halls have been relatively higher than those paid by the theaters, and the bill now before the legislators proposes to remedy this anomaly also.

St. Etienne. Plans are under way to install motion-picture apparatus in each school in the city by October, 1922.

ILLINOIS

Chicago. Mrs. Charles E. Merriam, chairman of the Better Films committee of the Illinois Council of Parent-Teacher Associations, in a talk at the annual conference of the Chicago district of the Association, urged mothers to inform themselves more conscientiously regarding movies suitable for their children's patronage. "Mothers are particular about the food their children eat, about the books they read, and about the companionships they form, but frequently pay no attention to the movies their children go to," declared Mrs. Merriam. "A picture show is just a picture show to them. Mothers should look over the lists of approved shows and see that their families

attend no others. Then, by assuring exhibitors of better patronage for those shows, perhaps the latter can be prevailed upon to show only films acceptable for the family circle."

Chicago. Of recent years the Art Institute has given an ever-increasing measure of service to the city's schools, and teachers and principals are coming more and more to depend upon it as a "visual educator." The Chicago Board of Education has now appointed Mrs. Karl A. Buehr, wife of the well-known artist and a teacher well acquainted with the works in the Institute, as instructor for public school classes who visit the galleries.

INDIANA

Indianapolis. The Indiana Indorsers of Photoplays, in co-operation with the department of visual instruction of the Indianapolis public schools, will use their influence to bring instructional and semi-educational pictures to neighborhood theaters, for showing at regular prices. It is also planned to exhibit at these theaters from time to time educational films which will supplement classroom work.

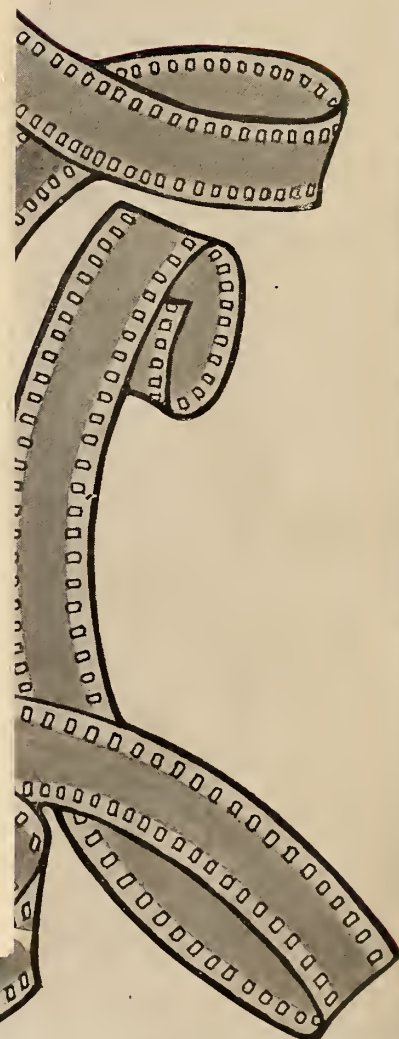
Terre Haute. On February 8 a moving-picture machine was installed in the Sarah Scott school. "We have daily use for it," Principal Lawrence Jones is quoted as saying. "We will use it in geography, biology, history and literature classes, and occasionally for entertainment purposes."

IOWA

Waterloo. Until the past few decades the need for Americanization work seemed confined to New York and Boston, but now we find the Y. M. C. A. as active in Waterloo, Iowa, as if it were a port on the Eastern coast. The General Secretary, S. A. Cohagan, reported that they had shown "Hats Off" twenty-one times to 3,100 people and "A Citizen and His Government" nineteen times to 3,300

ATION

ts • 100 a Year



VISUAL EDUCATION

people. The audiences were the Rotary Club, lodges, public schools, churches and community meetings. Mr. Cohagan says he believes the Y. M. C. A. can do no better work than this kind of Americanization work.

JAPAN

Tokyo. The Japanese have been more ready than the school authorities of the United States to accept visual equipment for the teaching of school children. "This is what we might expect," comments the writer, Mary Lee Adams, "for the Japanese, being fairly recent converts to modernism, are as eager as the usual proselyte to adopt every aspect of the new cult. Moreover, such a system appeals to them because through the centuries they have especially cultivated a retentive memory of things seen."

MICHIGAN

Ann Arbor. Dr. Hugh Cabot, dean of the medical school of the University of Michigan and head of the department of surgery, has arranged to introduce moving pictures in the teaching of operative surgery to undergraduate medical students. Dr. H. N. Torrey of Detroit, an alumnus of the University and a graduate also of Johns Hopkins medical school, has presented the medical school with the necessary moving-picture machine and with sufficient money, in addition, for the current expenses of operation.

Detroit. A special system for equipping public schools with projectors has been adopted by Edwin H. Reeder, supervisor of visual education. It is reported that twelve new motion-picture outfits were installed in platoon schools in January, and that all of the forty-two schools of this class are now equipped for complete courses in visual education. As fast as the other one hundred city schools are organized under the platoon sys-

tem, it is expected that they will also be provided with similar aids for their classroom work.

Visual instruction has been in operation only three years in Detroit, but its advantages are already enjoyed by 35,000 pupils, while 100,000 more are given stereopticon lectures. Films on nature study, literature, geography, industries and folk-lore are used in the thirty-minute programs.

NEW JERSEY

Paterson. Motion pictures will be used in all the schools of the city for the teaching of certain subjects if the Board of Education acts favorably upon the recommendation made by Supervisor Lewis A. Bennert. After making a survey of the use of visual education methods, he set forth the need of motion pictures in connection with such teaching and suggested an appropriation of \$2,000 to lay the foundation for a wider use of teaching films.

South Orange. Until recently the only motion pictures in town were shown under the auspices of the Home and School Association in the school auditorium. The parents decided what kind of pictures they and their children cared to see, and selected a feature, a comedy and a news reel for their twice-a-week shows. The audiences increased, and business men of the town felt the time was ripe for a "movie" theatre. Consequently, an exhibitor who appreciated his prospects was invited to establish himself in the vacant field. He agreed to co-operate with the committee appointed by the Home and School Association, with the result that the screen is being used for only such pictures as commend themselves to good taste. The exhibitor also agreed to turn over the proceeds from six shows annually, so that the dental clinic which had formerly

been aided by the Association does not suffer through the fact that the "movie" business has changed hands.

NEW YORK

New York. The visual instruction division of the State Department of Education reports a distribution in November of 72,000 slides to the schools of the state. This is an increase of forty per cent over the high records of Novembers of previous years. Ten years ago the number of slides furnished by this division for the entire year was scarcely more than the number for this single month.

OHIO

Lorain. During the cold weather the Lorain High School has been giving free moving-picture shows during the noon hour. Principal P. C. Bunn states that 700 pupils who remain in the building have been attending the exhibition of educational pictures and comedies which have been given in the auditorium daily.

Springfield. Wittenberg College has just produced a motion picture to be used in a drive to secure more students for the ministry. Over 3,000 feet of film have already been completed showing the life at Wittenberg. The picture will be used by pastors of many Lutheran churches who are being organized to assist in the project.

OREGON

Astoria. New life has been brought into the work of county agents in rural districts the country over by the introduction of the motion picture. The following item clipped from a small-town newspaper is typical of activities in many rural districts:

"The farm film has been shown at Knappa, Brownsmead, Walluski and Netel Grange this week to large and interested crowds. The meeting

scheduled for Battle Creek yesterday afternoon had to be postponed, due to mechanical difficulty with the generator attached to the county agent's 'flivver' and used to furnish the necessary current for the picture. However, the generator was repaired in time for the night meeting at the Netel Grange."

SCOTLAND

Dundee. An amusing little item comes to hand illustrative of an influence traced to the "movies" among the canny Scots. "Upholstered chairs, like those used in popular motion-picture houses, have replaced the pews in the Wesleyan Methodist Church here. A rostrum has been substituted for the pulpit."

SWEDEN

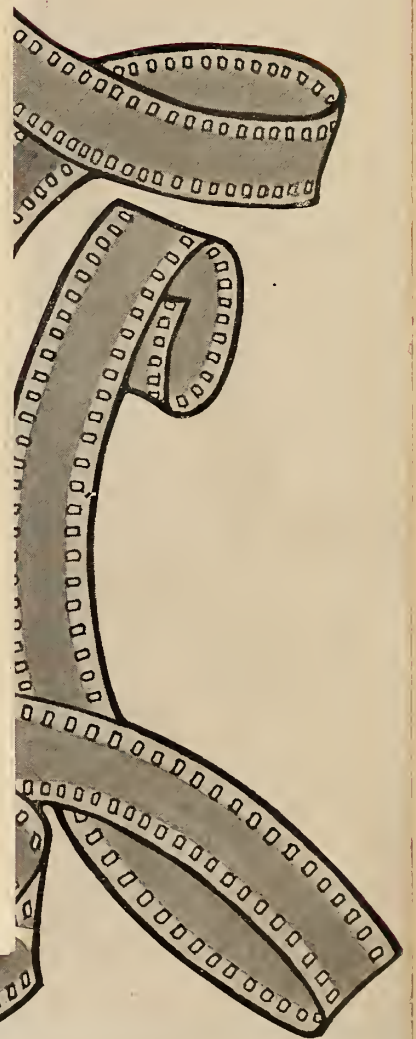
Stockholm. Visual education has made quite as much progress in Sweden as in the United States. For years programs for school children have been given at special performances at the theaters, classes attending the performances in company with their teachers who later quiz them on the films shown. "There is a very strong feeling here in Europe that all the educational possibilities of the moving picture should be utilized in all kinds of schools," writes Mrs. Dagmar M. Waldner of Stockholm, a recognized European authority on educational cinematography and its resources.

TENNESSEE

Nashville. Through the use of moving pictures, the Knapp School of Country Life gave a remarkable demonstration of the dairy industry at the social-religious building of Peabody College on December 15. On the screen were visualized the successive steps of the dairying process, from the cow to the finished product, the judging of animals, and pictures of famous herds of dairy cattle from all parts of the country.

ATION

ts • 100 a Year





Projection Queries & Answers

Readers are invited to address queries on practical projection matters to Projection Department, care of VISUAL EDUCATION.

Question —Please tell me what are the differences between inflammable and non-inflammable films.—A. H. T., Boston.

* * *

Answer —There are two kinds of film in commercial use at the present time, the nitrate of cellulose, or ordinary inflammable, and the acetate of cellulose, or slow-burning film. The former is in universal use in theaters; the latter is being used more and more largely in pictures for schools and churches.

The base of all film is ordinary cotton. The differences in the final product depend upon the differences in the chemical treatment to which it is subjected. The inflammable film is a nitrate, or better, a tri-nitrate, of cellulose. This means in ordinary language that it is a chemical compound of cellulose, which is derived from cotton fiber, and of nitrogen and oxygen. The nitrogen renders the compound unstable; the oxygen makes it capable of burning without using oxygen from the air. The slow-burning film is an acetate of cellulose, a compound which is relatively stable and which, therefore, burns more slowly.

Much emphasis has sometimes been placed on the fact that inflammable film is closely related to gun-cotton. Gun-cotton is more highly nitrated and less stable than celluloid film. Even if they were identical in composition, the fact should not be forgotten that they are burned under very different conditions. In a gun the pressures go up to 30,000 or 40,000 pounds per square inch, while the temperatures mount very high. Under

these conditions the burning is rapid and almost explosive in character, but under no conditions does it approach the violence of high explosives such as T N T. Moderate quantities of gun-cotton can be burned in the open air without violent results.

The conclusion is that inflammable film is easily burned and makes a hot fire that cannot be smothered, and that therefore all precautions should be taken when using it, but that in moderate quantities it does not have the violent characteristics of a high explosive. In fact, all drug stores handle kodak films and numerous other articles made of celluloid and rarely have they caused destructive fires.

The non-inflammable film burns so slowly that it is easily extinguished if it takes fire, and even if it is not put out a moderate quantity of it will not produce a dangerous conflagration. In both kinds of film the smoke from the combustion is worse than the heat produced, unless many reels are burned.

Films for kodaks and cameras come in a great variety of sizes. Only two sizes are at present in general use for motion-picture films—the standard and the so-called safety-standard. The width of the former is one and three-eighths inches and of the latter one and one-tenth inches. More than 99 per cent of all of the film used is of "standard" width, some of it being inflammable and some non-inflammable. Most of the safety-standard film is on non-inflammable stock.—F. R. MOULTON.

Yosemite as a Teacher

A. E. DEMARAY

Editor, National Park Service, Department of the Interior

YOSEMITE National Park as a recreation area is serving annually thousands of joyous visitors. Its world-famed valley, profound canyons, lofty waterfalls, foaming rivers and trout-filled brooks, countless emerald lakes, snow-covered mountain peaks, flowered mountain meadows, vast stretches of stately forests, and friendly roads and trails, make of it an enchanted playground.

It is a land not only of scenic beauty but of marvelous climate—a climate of sunshine and serene skies, of warm summer days and cool nights, nights that at the higher levels are even frosty.

An Open-Air Museum

The opportunity for healthful outdoor living thus afforded brings an even wider opportunity for the park to serve as a great open-air museum of natural history. And in order that visitors may more fully enjoy the privilege presented, the National Park Service has provided a free nature guide service. The aim of this service is to teach visitors to see and appreciate the living things afield, and to impart an understanding of the forces of nature which have hewn this place of beauty.

During the summer season the nature guides arrange for trips with both adults and chil-

dren, in the course of which a first-hand knowledge is acquired of the wild flowers, trees, birds and animals encountered on a two hours' walk along a trail.

Lectures and Exhibits

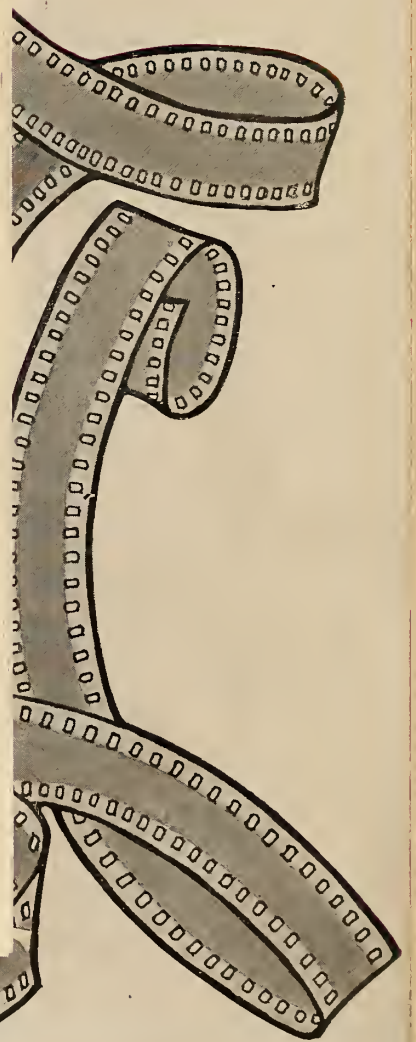
Lectures and camp-fire talks are given in the evenings at the different lodges and camps. Some of the formal lectures are illustrated with lantern slides and motion pictures, but the shorter talks usually answer oft-re-

(Continued on page 184)

With a Yosemite nature guide to answer questions, first-hand knowledge is acquired of the wild flowers, trees, birds and animals encountered on a two hours' walk along a trail.



Photo by H. C. Bryant.



BRIDAL VEIL FALLS IN SPRING

Yosemite National Park is open all the year and many come in winter to see the snow spectacle.

©J. T. Boyesen



Lake Tenaya, gem-like in its setting of granite peaks. The Tioga Road skirts its shores.

Photo by H. C. Tibbitts.



THE GATES OF YOSEMITE
Bridal Veil Falls on the right—El Capitan on the left.

Photo by H. C. Tibbitts.

GLIMPSES OF THE

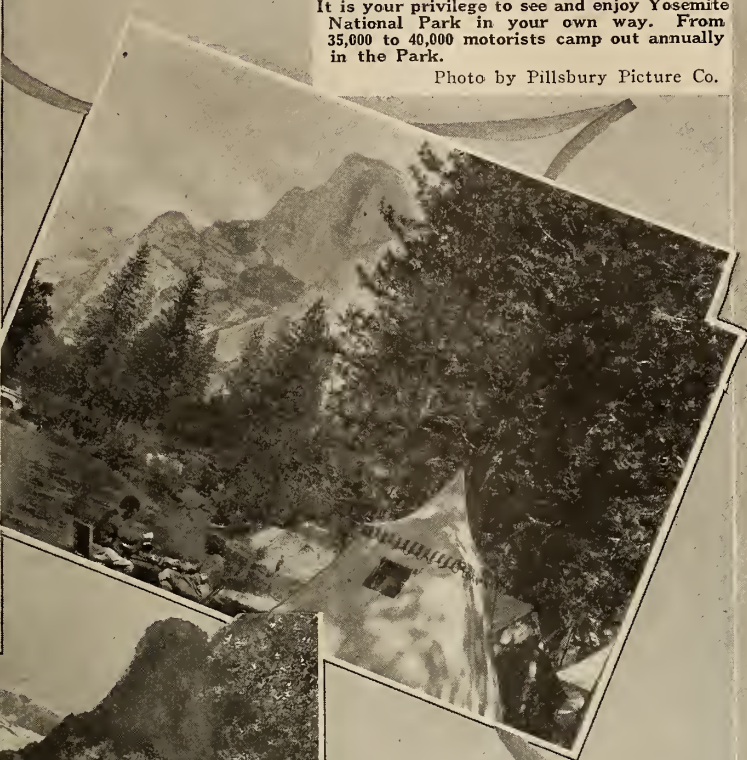
No matter what their expectation, most visitors

ATION

ts • 100 a Year

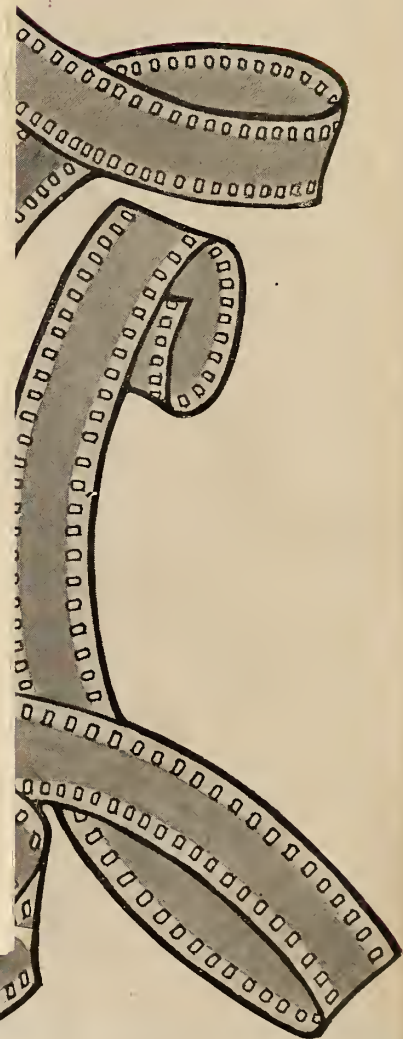
It is your privilege to see and enjoy Yosemite National Park in your own way. From 35,000 to 40,000 motorists camp out annually in the Park.

Photo by Pillsbury Picture Co.

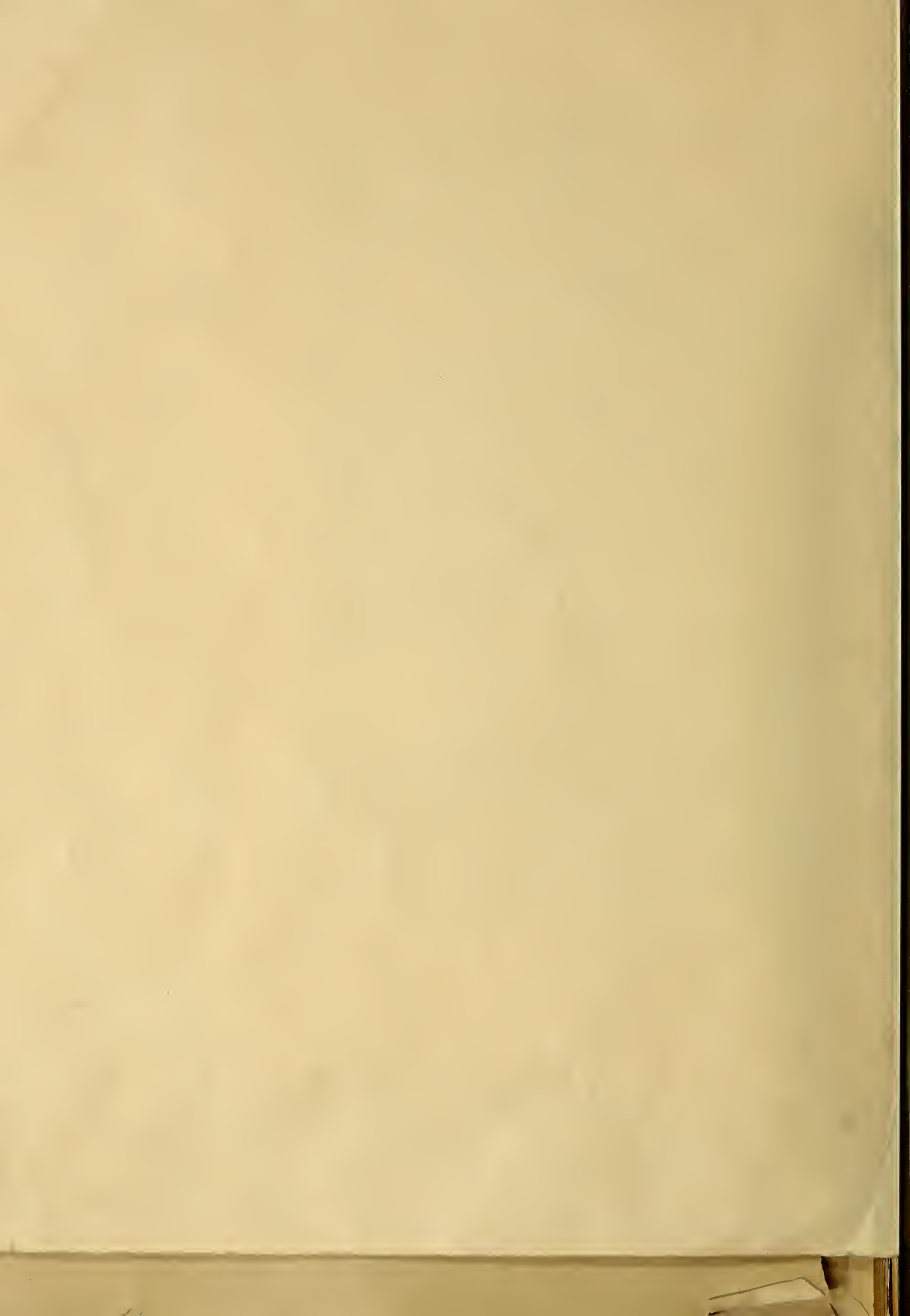


SS THAT IS YOSEMITE

ghtfully astonished upon entering Yosemite Valley



THIS ISSUE: *Playing the Health Game*

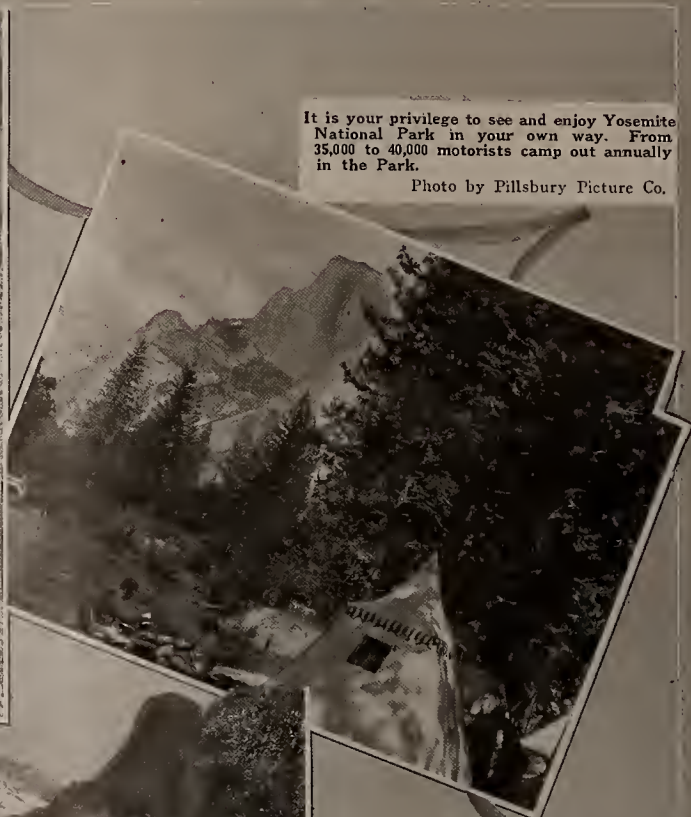


BRIDAL VEIL FALLS IN SPRING

Yosemite National Park is open all the year and many visitors come in winter to see the snow spectacle.
©J. T. Boysen.



It is your privilege to see and enjoy Yosemite National Park in your own way. From 35,000 to 40,000 motorists camp out annually in the Park.
Photo by Pillsbury Picture Co.



Lake Tenaya, gem-like in its setting of granite peaks. The Tioga Road skirts its shores.
Photo by H. C. Tibbitts



THE GATES OF YOSEMITE
Bridal Veil Falls on the right—El Capitan on the left.
Photo by H. C. Tibbitts.

GLIMPSES OF THE LOVELINESS THAT IS YOSEMITE

No matter what their expectation, most visitors are delightfully astonished upon entering Yosemite Valley



The Films in Review

By M. M. F.

THE BATTLE OF JUTLAND

ON the afternoon of May 31, 1916, the cannonading of the greatest sea battle of all time shook the shores about the North Sea. The German fleet, which so long had remained behind its mine fields at the safe naval bases of Wilhelmshaven and Heligoland, was at last out upon the high seas and the mighty ships of the British navy were churning the gray waves in their haste to give it battle.

For the English, this was the first naval encounter since the Battle of Trafalgar in 1805; for the Germans, it was the first in their history. And in the size of the contending fleets, in the number of men involved, and in the importance of the cause at stake, the world has never seen the like of this struggle.

This three-reel pictorial representation of the momentous conflict is a remarkably successful attempt to visualize with animated diagrams the tactics employed by both forces. The film provides the opportunity not only to see clearly what happened, but also to understand the reasons for the maneuvers.

It is stated that three years were spent by the producer, Major-General Sir George Aston, K. C. B., in compiling the data necessary to make the film accurate and reliable. Among other tasks, he had to compare all the logs of both the British

and German fleets before he could reenact with models every move of all the ships concerned. Each model could be moved but a sixteenth of an inch at a time, and three million movements were made before every course steered, every sinking, every torpedo attack and broadside, could be faithfully recorded.

Occasional motion-picture views of battleships, cruisers and destroyers, with glimpses of the commanders, lend variety and color to the animation. An unusual and striking touch is found in the use of red to denote the gun flashes and the destruction of unfortunate ships. It is a method so startling in its realism that you can almost hear the explosions which shattered and destroyed these roaring monsters of the deep.

The picture does something more, however, than present a keen analytical study of the extraordinary strategy displayed by the opposing commanders. It pays, perhaps unconsciously, a most eloquent tribute to the valiant men who manned the great ships. One cannot see a film like this without a keener realization of what it means to have death leap redly at you and to find no escape in the indifferent waters around. Fortunate indeed an educational film that can make out of its statistical facts something so humanly appealing.

Distributed by Educational Film Exchanges Inc.

JANE EYRE

JANE EYRE! What happy memories of hours absorbed in the vicissitudes of this mid-Victorian heroine are conjured up by the mention of the name! And now the novel has been converted into a photoplay and the grave little governess has been forced to trip from the quiet retreat of her cloistered pages into the revealing white glare of the celluloid reel.

The involuntary prayer of the lovers of "Jane Eyre," upon learning that the book was to be filmed, must have been an intercession in behalf of the heroine. The production, however, has been very gentle in its treatment of this appealing figure. Mabel Ballin, who plays the part of Jane Eyre, must love the story, so understandingly does she interpret the rôle. The staid and collected demeanor of the lonely orphan was but a veil covering a sweet, whimsical fancy, a broad sympathy for those about her, and a heart lilted with emotion, and well does Miss Ballin comprehend this fact. It must have been a difficult accomplishment, this suggesting the impulses of warm, palpitating life kept always under firm control; yet it is achieved. Moreover, she has the advantage of being physically suited for the part. Her dark, pensive eyes, glossy head of hair, and slight figure, whose grace the voluminous and stiff draperies of the forties cannot conceal, destroy no fanciful concepts one might previously have cherished concerning Jane's appearance.

Hugo Ballin, who directed the picture, was as kind to the story as was his wife to the heroine. He has passed rapidly over her forlorn childhood and dismal sojourn at the unspeakable Lowood School, sketching in only enough epi-

sodes to provide sufficient understanding for what follows. He thus has afforded himself opportunity to concentrate his efforts upon what is after all the thing of most consequence—Jane Eyre's romance with the master of Thornfield. And herein was he wise, for what the public demands, whether it be picture, song or story, is always a love theme—love with variations, but always love. In presenting this romance he has followed his original source most faithfully, making only a few slight changes, doubtless found necessary because of the exigencies attendant upon adaptation to the screen.

Charlotte Brontë little dreamed in what manner she was building for the future when out of her loneliness and grief she penned this picturesque narrative. Its melodramatic events form the type of material best adapted for screen use. There is plenty of action, with little analysis; there are concrete facts lending them-

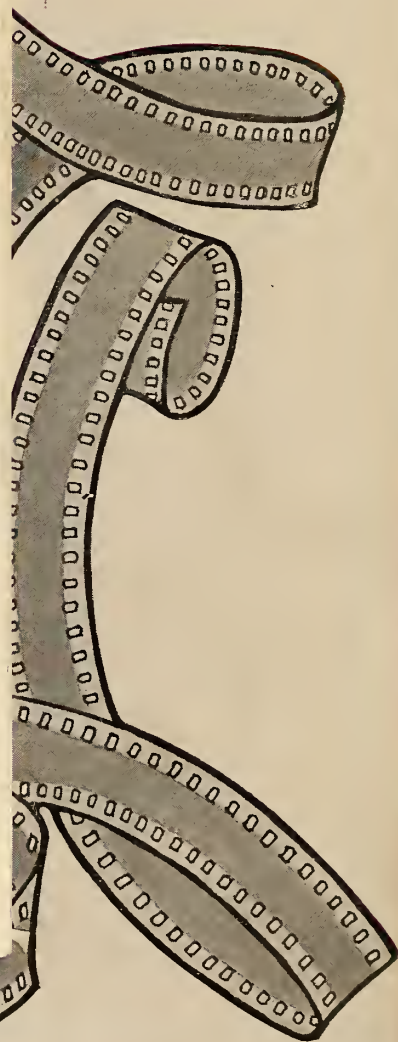


JANE EYRE

Jane hears the old, old question

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

selves easily to visualization, rather than much unpictorial conversation and subtle reflection. A maniacal wife concealed in upper chambers, a guardian as uncanny as the mystery itself, midnight wanderings of the mad woman, a contemplated bigamous marriage carried as far as the steps of the altar, suspense, disaster, conflict of wills, flight and reconciliation—what could be more dramatic!

The wonder is that with all this wealth of spectacular episode the director was able to keep the picture from becoming merely a sequence of colorful events. He has, in fact, maintained throughout a warm, human touch and the proper atmosphere. This atmosphere, however, is created by the skill of the characterizations rather than by the aid of background and settings, for while the scenes are dignified and harmonious, they do not suggest any particular attempt to follow accurately what one would expect as typical of the Victorian era.



PENROD

"Ladies and Gentlemen, you see before you the only living cannibal in captivity, straight from the jungles of South Africa."

A word should be spoken in praise of the performance of Norman Trevor as Mr. Rochester. Here is to be found a hero vastly more distinguished and compelling than the college heroes of whom our novelists are so fond. His cynicism, his indifference to the conventions, his smouldering passions, and his love for the appealing, slim creature who slipped through his halls like a shadow, all make his personality one that stands out in high relief. The apparent incongruousness of his affection for Jane Eyre makes the situation all the more alluring. Mr. Trevor is adequate to all the demands of such an exacting rôle.

It seems to be a prevalent habit of directors to leave too much to the intelligence of the audience, so far as the amount of explanation proffered in the subtitles is concerned. There are a number of places in this picture where the information contained in the subtitles is not sufficient to make the relation of characters and the connection of events clear.

There are, however, so few flaws to pick in this production that one may witness it without the anguish of seeing a favorite classic misunderstood and distorted. Seldom is the screen more tender with its adopted literary children than it has been with Jane Eyre.

Released by Hodkinson.

PENROD

GOOD children are, of course, more to be desired than rubies and pearls. When, however, their deviations from the paths of righteousness and convention are as delightfully amusing as are those of Penrod, virtuous conduct is no longer at a premium.

No wonder Mr. Neilan, producer and director, felt that the series of "Penrod" stories provided most fertile material for an unusual photoplay, for Mr. Tarkington built the humor of their content and style upon a sound understanding of

adolescent psychology and a tender sympathy for the boy both as an individual and as an institution. And his theme is that of youth—irresponsible, debonair, headlong, utterly joyous youth—appealing alike to those who have seen it slip away and to those who yet carelessly hold it.

The dramatization, however, of this promising subject, while commendable from many standpoints, is indefinably disappointing. Clever and entertaining, skillfully handled so far as the technique is concerned, it yet lacks force and a certain distinctiveness. This condition may be partially caused by the fact that the picture, through a too-faithful adherence to the original text, has a marked tendency to be episodic and to dispense with easy transition from one event to another.

Moreover, the episodes within themselves lack a certain stereoscopic quality, a dramatic stress that gives point and clarity to a whole situation. Penrod, for instance, besmirching the immaculate linen of his confrères with hot tar, was an inspiring and uplifting spectacle. The producer, however, failed to bring out the fact—which is the point of the whole story—that it was the continued application of the horrible term of opprobrium, "little gentleman," that brought about the sticky holocaust. And in failing there he has failed entirely to "get across" the psychology of the situation.

Wesley Barry, who represented the unusual Penrod for the delectation of cinematic audiences, is beyond doubt a personality. Whether or not his was the personality best adapted to the exigencies of the rôle is a matter for reflection. There were other youngsters in the cast who displayed equal histrionic ability and whose appearance in every way fulfilled one's ideals of the typical American boy.

Children, however, who are the most most gentle of critics, will "eat up" this picture, and it will do them good even if it does suggest new pranks to their imitative minds. Those who have seen more

years will find that the film will happily stir the dying embers of their youth.

Too bad, when the picture is so good, that it couldn't have been better!

Distributed by First National.

THE RICE INDUSTRY OF TEXAS, LOUISIANA AND ARKANSAS

ONE always thinks of rice as growing in Oriental fields, with picturesque natives performing laboriously by hand all the processes incidental to the cultivation of the crop. The rice industry is, however, assuming large proportions in the southern part of our own country, a fact which this industrial reel makes very evident.

Combining vital statistics and expository subtitles with clear views picturing the most important processes in the cultivation and preparation of this valuable grain for the market, the information contained in this film is as illuminating and as complete as one could well expect in a picture of a brief thousand feet. And the story of the harvest is ever a fascinating one, old when the Greeks paid homage to the bountiful goddess, Demeter, and yet new in the birth of each swift year. If one will, romance can be read into every step of this agricultural process which has been visualized and brought to us through the medium of the cinema.

As one would expect, modern machine-
(Continued on page 182)

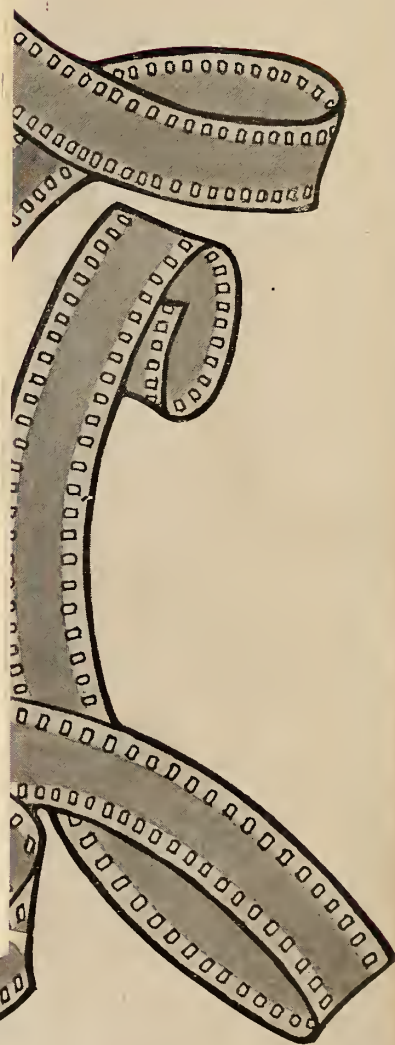


THE RICE INDUSTRY

Methods of cultivating rice in America are very different from the picturesque methods of the Orient.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



The Postmaster-General Enters the Movies

The decision of Will H. Hays to surrender his place of distinction as Postmaster-General in the cabinet of the President in order to become the head of the moving-picture industry has naturally aroused great interest.

While it is well understood that the film industry has become one of the largest in the country, with innumerable ramifications, the appointment of Mr. Hays is nevertheless highly significant. It is one of the many recent indications of the growing importance of the film and of the desire of vested film interests for unified co-operation and increased prestige. It is as clear to them as to the public that the day for selfish aggrandizement and indifferent production is gone.

The plans of Mr. Hays, as announced in the press, cover many phases of the field and lend much encouragement to those who realize what the screen can accomplish if properly nurtured. He confidently expects to aid in making the motion picture a vital force for good in American social life—something that will articulate with and emphasize the finest American ideals.

This new general director of the movies, with a clear comprehension of the situation, intends to stress the educational motion picture. Its influence upon the

youth of the nation will be one of his chief considerations. In keeping with his general policy, he also anticipates certain radical changes in the present unsatisfactory condition of censorship.

The successful pursuance of his schedule promises a happy remedy for many of the evils that afflict the world of the motion picture. Seldom is a man given such rich opportunity for real public service.

* * *

Visual Education at the Chicago Convention

Educators who are spreading the gospel of a wider extension of visual methods in teaching found plenty of encouragement in the addresses, exhibits and discussions which marked the Chicago meeting of the Department of Superintendence and other departments of the National Education Association, February 25 to March 2.

While there was no single session devoting itself exclusively to the specific consideration of visual education, there was discernible throughout a growing recognition of the bigness of the visual movement, and a realization in particular of the swiftly-developing question of classroom films and how best to make them turn the wheels of education. This interest cropped out in numerous papers, in scores of informal discussions, and in hundreds of eager conferences at booths

where the practical tools of visual education were on display.

* * * * *

Recent developments in stereographs, slides, maps, models, charts and educational films captured the interest and approval of visiting educators; stereopticons and moving picture machines were demonstrated to large and enthusiastic groups of teachers and school officers. The majority needed no argument indeed as to the desirability of using these materials, but evinced keen interest in comparing the different makes for simplicity of operation, quality of the projected picture, and like points.

* * * * *

The exhibit of the Visual Instruction Department of Chicago schools served as a concrete illustration of the possibilities of correlated visual teaching. The series of available visual materials for teaching the life history of the Monarch butterfly, for example, included a portable museum cabinet, a collection of fine stereographs and lantern slides, and an educational film picturing the complete life cycle of the insect. On one occasion a class of eighth-graders took possession of the booth and furnished effective demonstration of the use of slides in carrying on a socialized recitation on the subject of the Panama Canal. More complete demonstrations of the workings of the visual method in Chicago schools were available to educators who took advantage of the opportunity to visit the Visual Instruction Department at the offices of the Board of Education.

* * * * *

To one of the sessions of the National Association of Directors of Educational Research, Dr. Frank N. Freeman of the School of Education, University of Chicago, contributed a paper on the subject, "Research vs. Propaganda in Visual Education." He put forward a strong plea for serious research and continued experimentation, in order to determine what are the potential values from the use of the screen which have not yet been

realized, as well as what are the precise limitations of the method.

Outlining the three stages through which every educational movement passes as (1) enthusiastic propaganda and large-scale adoption; (2) reaction from over-enthusiasm and decline in the movement; (3) careful study of the device, estimate of its true value, and correlation with other aspects of education in such a way as to bring most fruitful results, Dr. Freeman urged educators to avoid the waste which has marked the history of other new teaching devices and to proceed at once to give the educational film the kind of intensive scientific study ordinarily attempted only in the third stage. He emphasized not only the wisdom but the immediate feasibility of such a procedure; first, because we know what the history has been in the past; and second, because today we have in our hands the technique for evaluating new methods.

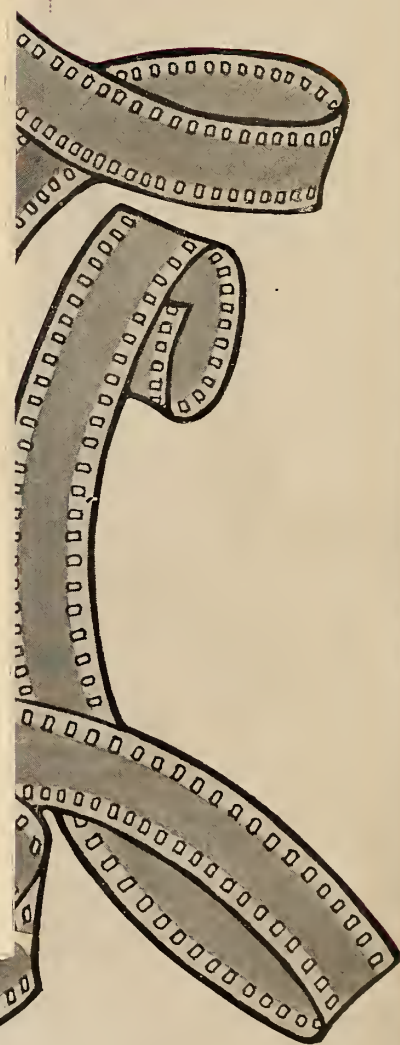
Experimental investigation, declared Dr. Freeman, must determine not only the types of subject matter to which the film is best adapted, but the methods in which that subject matter should be presented. In connection with the latter question, four major problems were indicated as awaiting solution through analysis and careful scientific procedure: The span of attention; the best method of securing pupils' attention and of so organizing the film as to make it furnish both intellectual stimulation and satisfaction; the rapidity with which the units of thought and subject matter should be presented, and the amount of detail to be included; and the degree of repetition and review necessary in order to secure permanent results.

* * * * *

At another session Mrs. Mary C. C. Bradford, State Superintendent of Colorado schools, pleaded for a more consistent application of the psychological principle of human interest in our educational processes. "Educators should insist on the use of textbooks that do not convert the attaining of knowledge into a thing of pain. . . . Entertain the

ATION

ts • 100 a Year



children and make them believe that the obtaining of knowledge, after all, is only a fascinating game." Newspapers, she emphasized, are under the necessity of presenting even the dryest facts in an alluring manner, and educators should make use of the same psychological principle.

* * * * *

In the course of several informal and unofficial meetings under the leadership of Ernest L. Crandall, head of visual instruction in the New York City schools, there was launched a tentative organization to be called the Visual Instruction Association of America. The purpose is to bring together not only representatives of the teaching body but members of the industry itself, such as film producers and distributors, following the plan which has met with signal success in New York City through the activities of the Visual Instruction Association of New York.

Three lines of activity were suggested for the temporary organization to undertake: To correspond with the central body of officers; to carry on propaganda, foster the idea of visual instruction, and promote particularly the idea of close co-operation between the two elements involved in the problem—that is, producer and educator; to form active local associations and send delegates to the next meeting as representatives of an organized group.

Further information as to the provisional makeup of the organization, as well as a more detailed statement of its program, will be published in a later issue.

* * *

Yale Becomes a Film Producer

When a university like Yale enters the field of motion-picture production, one no longer need place his ear to the ground to discover what is happening. The growing realization in academic circles of what can be achieved with the cinema finds significant expression in such an enterprise.

The fifty-volume history series, "Chronicles of America," furnishes the particular source for these historical films. It is now planned to make one hundred reels, dealing with every important stage in the development of America. These pictures are not designed to take the place of the textbook, but rather to furnish visual material suitable for co-ordination with established courses of study. And there is no subject more gracefully adapted to screen visualization than that of history. It is inherently dramatic and narratory. To what the dry lines of the printed page may obscure, the motion picture will give permanent vividness and realism.

In order to conduct this undertaking in a businesslike manner, a special company, "The Chronicles of America Picture Corporation," has been organized, with officers selected from members of the University organization and from the professional ranks of the film field. Moreover, the services of such authors as Allen Johnson, Bliss Perry, Stewart Edward White, Ralph D. Paine, Emerson Hough, and others of equal renown will be at the disposal of the producers. No picture will be released until Dr. Max Farrand, professor of American History at Yale, and Dr. Frank Ellsworth Spaulding, head of the Department of Education, the editors-in-chief, assisted by various other authorities, have passed upon each foot of the film.

The statement is made that under the direction of the Yale University Press, preparations for these films have been carried on for two years. Several thousand photographs, originals and reproductions, constituting an exhaustive collection of Americana, have been acquired. There has also been intensive research carried on for that length of time. These history reels, if they in any way fulfill natural expectations, will make an invaluable contribution to educational film literature.

"1922 Will Reward the Film"

"This is to be the year of years for the motion picture industry." So states a prophecy of which the *CHRISTIAN SCIENCE MONITOR* takes cognizance. The forecast refers not merely to "the appointment of a United States cabinet member to the post of president of a great 'movie' combination, but, in particular, to the reported introduction of the spoken voice to the screen. The prospective revolution can easily be imagined. The type of actress who possesses few histrionic powers must, apparently, retire or take up minor parts. Some stars of the first magnitude must pass into the Milky Way, while their places may be taken by those who hitherto have been the 'just folks' of the screen. The man or woman who has relied for his or her success on powers of pantomime and is without a 'stage voice' may find that the demands of the screen upon an actor are as exacting as those of the theatrical stage."

With the prospect of color also coming into the movies to a greater extent than has been practical in the past, 1922 should surely be a great year for the screen.

* * *

N. A. V. I. To Meet in Lexington Dr. F. W. Reynolds, head of the extension division of the University of Utah, announces the third annual meeting of the National Academy of Visual Instruction in Lexington, Ky., April 18-20.

Acting on the program committee are J. V. Ankeney, chairman; W. M. Gregory, J. W. Shepherd and A. W. Abrams. A comprehensive program has been prepared and exhibits of slides, films, pictures, maps, models, books and bulletins will be in evidence.

A joint session will be held with the University Extension Association on April 20, at which it is expected that Commissioner of Education John J. Tigert will be present.

Tony Sarg and His Puppets

About seven or eight years ago, while Tony Sarg was searching through books on toys for information about additions to his famous toy collection, he came upon marionettes, and decided to revive the ancient art. He then invented a Marionette Theater and developed a profession for himself and his puppets.

"The art of the puppet play goes back to the days of Egypt and Greece and Rome," continues Fred J. McIsaac in his article about Tony Sarg in the December number of *THE DRAMA*. "They have been seen in India and China. Goethe was fascinated by them in Germany. Le-Sage wrote puppet plays in 1721 in France. In England in the sixteenth century they were introduced to enact Bible narratives, and Pepys wrote of the puppet play, 'Patient Grizill,' which he saw at Bartholomew Fair."

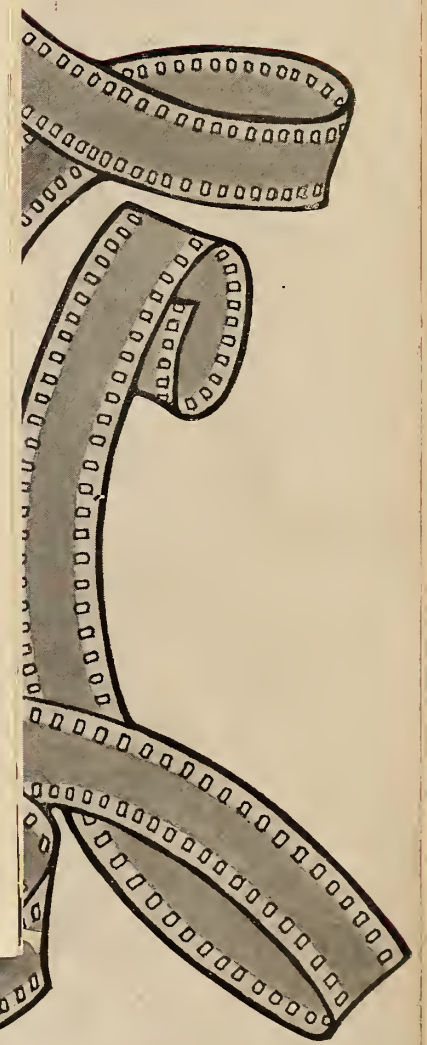
Tony Sarg, an artist by trade, designs all of the scenery and the costumes; models the faces of the puppets; plans the lighting effects—in fact, is more versatile than the manager of a full-sized dramatic production. Some of his marionettes have as many as twenty-four strings and require two persons to manage them. It needs months of practice for puppeteers to learn to manipulate a doll and remember the lines; therefore rehearsing is a long, complicated process.

Plays for presentation by marionettes are not easily obtainable, because many technical points must be properly considered. Those that Tony Sarg uses are written especially for him since he wants only plays that contain elements which cannot be carried out on the regular stage.

It is interesting to note that Tony Sarg is embarked upon a new venture. For the benefit of the motion picture screen he is making use of the Chinese and Japanese shadowgraph plays, enacted by silhouettes moved by sticks and operated from below.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

The Picture Hour

The following informal picture-talk is intended to suggest to the teacher various ways in which she can make pictures teach for her and with her. There is no doubt but that a picture with a vital theme can, if properly interpreted, teach as much as, or more than, many pages of textbook information. There are scores of good pictures available for such a purpose that are equal in instructional value to the painting selected as this month's subject.



"STORM QUIET," BY PAUL J. DOUGHERTY

Courtesy of A. H. Abbott & Co.

SOME people might look at this picture, so beautifully called "Storm Quiet," and say, "Oh, yes—the sea-shore; very pretty, very pretty," and then go away and look at something else. You ought, however, to study this picture as you would a printed page, for it has many interesting facts to tell you.

Just try to imagine how this calm ocean will look when the storm finally breaks and the great waves roll in from the deep. We are told that surf has sometimes been thrown so high as to break windows in a lighthouse one hundred feet above. On

the coast of Great Britain, the strength of the waves has been estimated to be as much as three tons per square foot.

When all this mighty force of water comes rushing in, sweeping before it all the small rocks lying around loose and flinging itself upon the shore, what do you suppose happens? Some one once said that the waves were forever making war upon the land and forever carrying away with them trophies of victory. What in the world could that person have meant? And the waves find many "tools" with which to hack and beat away at the

land. If you name the tools which a carpenter generally keeps in his chest you might mention some very similar to those which the waves use.

If this painted shore line were real, what part would feel the full force of the waves and wear down the most quickly? If the little promontory jutting out to seaward happens to wear down so that the shore line becomes regular and even, there will be still another change gradually occurring through the long years, particularly if the rocks are harder in some places than in others. The story of how the outline of a shore continues to change and change, if you only give it time enough, is written in many different ways for scientists to read.

Pretend to stand on the very highest point looking out to sea and count the sails on the sky-line. If you were the captain of a fine ship a-sailing on the sea, would you sail it very close to such sharp-pointed rocks?

Now here is a real problem for you to figure out. Judging from what you can

see in this picture, do you think such a shore line offers very many safe harbors, or that the country behind, which you can't see, is very thickly populated?

Paul J. Dougherty, the man who painted this picture, is an American and is considered one of the very best artists of the day. Many prizes have been bestowed upon him for his fine work. It is certain that he must love with all his heart that great mass of water we call the ocean, otherwise he never could make us feel the hush of the brooding storm. You can almost hear the little rippling waves splash over and around the rocks.

People who know just how pictures should be painted praise the balance of the rock masses in this painting and the clear sweep across to the horizon. Mr. Dougherty has certainly used his brushes very skillfully to give us this beautiful picture. Now see how skillfully you can use your pencils to make a word painting of this scene for those who have never seen it.

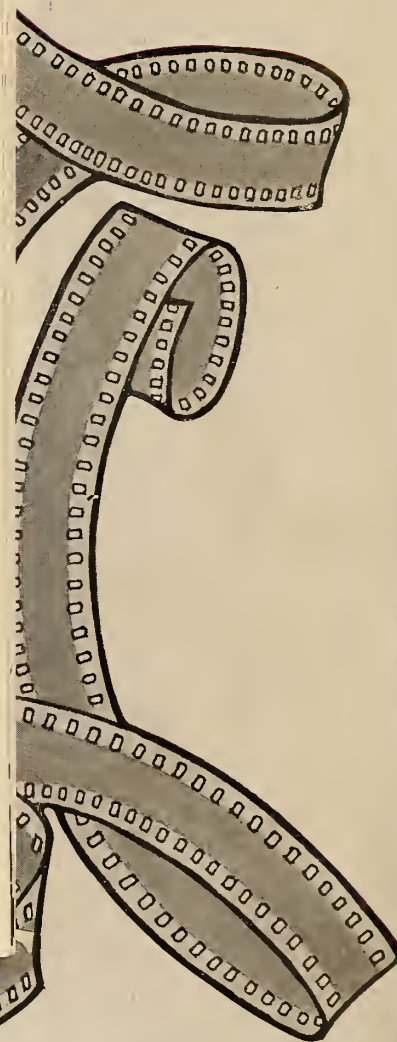


THERE was a child went forth every day
And the first object that he looked upon he became
And that object became a part of him for the day or
a certain part of the day
Or for many years or stretches or cycles of years.
The early lilacs became a part of this child
And grass and red and white morning-glories
And white and red clover and the song of the phoebe bird.

—WALT WHITMAN.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



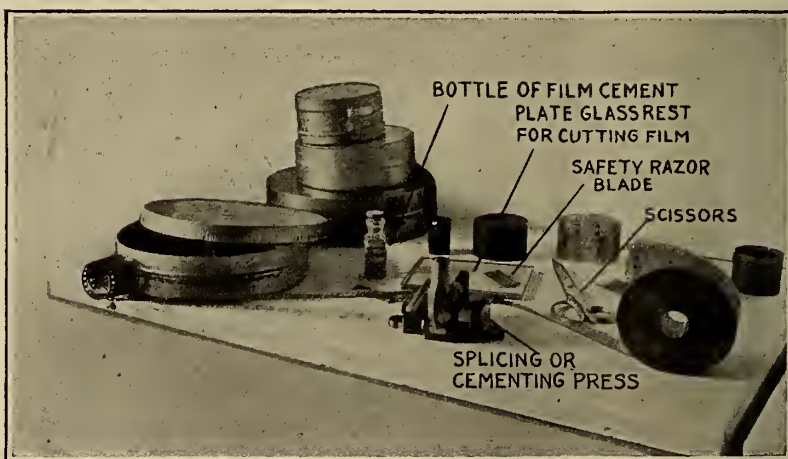
"Here are books"-Carlyle

The Cinema Handbook, by Austin C. Lescarbours. New York: Scientific American Publishing Co., Munn & Company. Pp. 507.

In "The Cinema Handbook" the author of "Behind the Motion Picture Screen" has again made a valuable contribution to the literature concerning the motion picture. A long-felt want is met by this little volume, which is "designed as a guide to practical motion-picture work of the non-theatrical order, particularly as applied to the reporting of news, to industrial and educational purposes, to advertising, selling and general publicity, to the production of amateur photoplays, and to entertainment in the school, church, club, community center and home."

Too often books purporting to contain practical information are found to be limited to theory and generalization, and those who consult their pages in an honest quest for assistance are doomed to disappointment. "The Cinema Handbook," however, proves to be a surprising exception to this rule. It is one of those rare books that tell you *why* to do things and exactly *how* to do them. It is beyond doubt the most complete and informational treatment of this particular phase of the moving-picture field yet placed before the public.

Beginning with a general examination of the principles of motion-picture apparatus, the chapters discuss in detail the various processes in the taking and developing of pictures, together with the



The essentials in mending film, including splicing press, bottle of cement, plate glass rest for cutting film, safety razor blade, and pair of scissors.



In filming subjects that are of an explanatory nature, the cameraman should seek to get his subject as large as possible. Why have all the meaningless area in this particular scene? The small square indicated contains the entire picture.

mechanics of projection. There is likewise a helpful compilation of miscellaneous data, including fire regulations, tables of weight and measure, a tabulation of chemical substances and their everyday names, and many other useful facts.

Although Mr. Lescarbourea announces in his preface that the treatment of material is too elementary for the professional motion-picture man, yet the book can hardly fail to be of service to the expert, so explicit and so comprehensive are the suggestions. The shape of the volume as well as its content indicates that it was designed for practical use. Its five hundred pages are compacted into vest pocket size, making it available for actual field consultation as well as for library reference. Scientific principles and mechanical details, always somewhat difficult of ready comprehension, are rendered clear by the lucid and uninvolved style. Frequent illustrations and diagrams lend effective visual aid to the technical discussions.

The fact that a number of commercial cameras and projectors are commented upon in full does not invalidate the sincerity of the purpose of the book or give

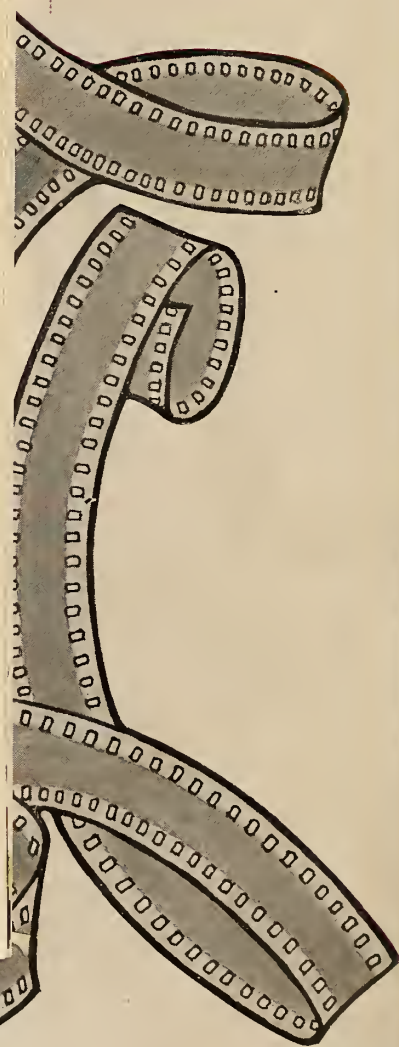
it any taint of commercialism. The exposition is not intended as an editorial endorsement of the machine, but merely as a genuine aid to any who may purchase that particular instrument. There has been a successful endeavor to maintain impartiality throughout.

Advanced Geography, by McMurry and Parkins; New York. The Macmillan Company. Pp. 501.

The fact that the science of geography and the methods of teaching it have made vast progress within the last decade is almost too obvious for comment. Children in the geography classes of today are given cultural information embracing a large field of human activities. While instruction in the subject formerly was concerned with gymnastic mental feats in memorizing facts of little practical use, the modern geography course offers a comprehensive survey of information formerly segregated in such courses as Economics, Physiography, Commercial Geography and even Civics. An up-to-date course in geography may well be considered as possessing many of the elements of a liberal education.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

The authors of this textbook have set before themselves a high ideal. One of the most important of the principles animating the work, as set forth in the preface, is that school geography should be humanized; that is, should be confined to the topics that have the most important human relationships. The authors have successfully endeavored to get away from the encyclopedic plan of treatment and offer instead a volume of coherent literature that is aimed to make a continual and varied appeal to the child.

Good thinking, they say, requires, first, that live questions be raised for consideration; then, that facts be collected, evaluated and organized until forceful and valuable conclusions are reached. In order to facilitate such correct habits of

study on the part of the child, marginal problems are submitted, arranged only after extensive study of the interests of the children as well as of the geographic facts concerned. These problems make provision for a wide variety of tastes and abilities and furnish valuable references and suggestions. They will help the teacher in solving the problem of outside assignments. The list of facts to be specially fixed in the mind, found in conjunction with these independent problems, will also prove most useful.

It is interesting to note that the table of contents shows the detailed discussion of North America—its history, peoples, divisions, etc.—first in order of study. This section is followed by a survey of general geography, including latitude,

longitude, standard time, winds, rainfall, distribution of temperature, and ocean currents. One would naturally think of this information as a necessary part of the intellectual background for the study of North America. The remaining continents are treated in the usual prescribed order of study. At the end of the division dealing with North America is to be found a review forming a pithy and comprehensive synopsis of material previously studied. Concluding the entire text is a comparison of the United States—its resources, commerce, etc.—with other countries.

The text is profusely illustrated with pictures, maps, charts and graphs. It is of peculiar significance to see the growing appreciation of the possibilities of the visual manifested in such a textbook. Perhaps without conscious intent in that direction, the authors have made their illustrations into force-



Pumping water for irrigation in Japan involves considerable arduous footwork.

ful pedagogical aids. They are made to teach. Their selection has been discriminating, and they are pictorially as well as informationally interesting. Their captions, which are frequently lengthy and often interrogative, are so contrived as to make apparent the vital details of the picture. Reference is occasionally made to these illustrations throughout the text, the pupil being thus encouraged to hunt through his pages and look at something from a new viewpoint.

The maps are unusually effective and every attempt has been made to bring them entirely down to date. Although both political and physical maps of the customary sort are provided for each continent, there is also a map for each large subdivision of a continent that brings together all the features studied, combining the political, physical and cultural elements. By this means the elevations, political boundaries, railroads and highways, canals, and cities can be more easily seen and studied in their relations to one another.

The diction used throughout the text, while clear, succinct and businesslike, lacks the spontaneity and variety that brighten up information for the imaginative and romantic child-mind. There are many, however, who will not consider this method of treatment a flaw in a serious text designed entirely for classroom use. That the book maintains the standard set in earlier publications of this series cannot be denied. Children guided along the road to learning by such texts as this are indeed fortunate.

Moral Education in School and Home, by J. O. Engleman. New York: Benj. H. Sanborn & Co. Pp. 314.

There is a lack of educational literature dealing expressly with the moral and religious training of the child. Since no one organization and no one institution has a monopoly on the child's life, the author claims that the key to success in this new effort lies in the co-operation and co-ordination of social

forces and social efforts. Since the needs of the child are now being analyzed as never before, the organization and methods of our schools, as well as the content of their courses of study, are being challenged and must be justified or dropped. The scheme of instruction and training must leave less to accident and chance and become more dynamic. Mr. Engleman considers what can be done for character with the ordinary subjects of instruction and the common experiences of the elementary school. With this point of view he suggests "ways and means of utilizing the potential moral values of the school as an institution, and points out the moral aspects of the conventional subjects of instruction and of the various activities of school life."

Some of these factors in moral training are:

1. *Example and personality of the teacher.* Thoughtful tact, sympathy and charity will be remembered longer than scholarship.

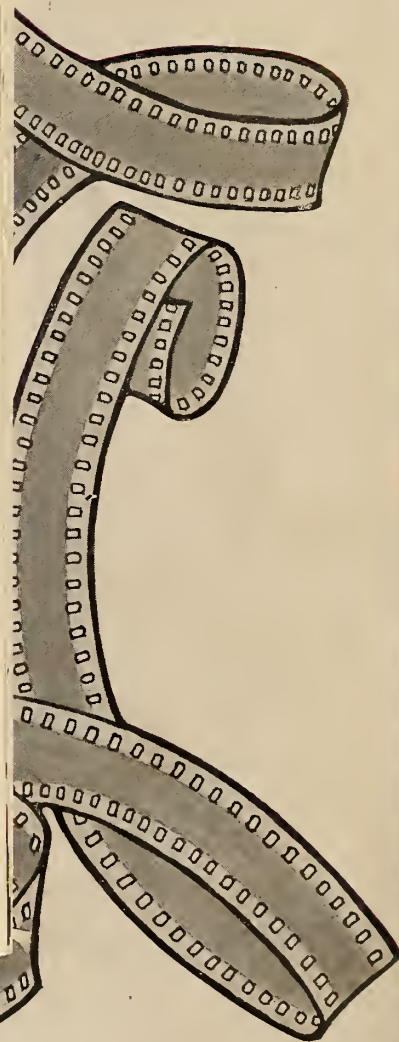
2. *School discipline.* The problem is to make obedience to law and order attractive; to train pupils to want to do right; to lead them to choose the right.

3. *Reading and literature.* The heritage of good books lies not in any cold analysis, but in the truth, beauty and goodness of the life and interest pulsing in them.

4. *History.* Since morality is really a matter of human relationship, the student of history has frequent necessity of exercising his moral judgment and finds many examples of courage, perseverance, industry, frugality, justice, and self-reliance worthy of emulation; and is impelled to respond with patriotism—one phase of the more general moral aim.

5. *Biography.* The virtuous deeds of good men and women are dynamic beyond mere preaching.

6. *Current events.* Incidents and characters under personal observation or recorded in papers and magazines offer moral qualities which, used judiciously in



the school room, make a forceful appeal and offer opportunity for expression of sympathy in some tangible form; gifts of money, food, clothing, or work.

7. *Music.* The great moral aspect of music is its unifying power. It breaks down all jealousies, ignorance, and intolerance and awakens sympathy and understanding. A quarrel cannot continue with musical accompaniment.

8. *Art.* From the standpoint that learning to produce or to enjoy art makes life richer, more significant, and more pleasurable for those about us, all art education is fundamentally moral education. The teacher's dress and personal appearance, the influence of the school-room, are equally important as is the moral content of pictures—for art's sake. Art for life's sake is the popular conception, taking distinct form in the arts and crafts movement.

9. *Thrift.* Financial independence today is more difficult than political independence for our Revolutionary fathers. The value of labor, waste products, money and health are items of consideration—found readily in biography.

10. *Sex instruction.* When such instruction is given, or at what age the child receives it, is not so important as whether sex knowledge is learned from vulgar sources or from pure-minded men and women. Simple biological studies, physiology and hygiene, talks by physicians, physical directors, and mothers' clubs are valuable channels of approach.

Many other factors that enter into the problem are discussed in full detail, such as the Bible, nature study and science, manual training, play and athletics, vocational direction, boy-scouting, motion pictures, the European war, etc.

The chapter dealing with that most modern and vital phase of education, the use of visual instruction, is of particular interest. The motion picture, says Mr. Engleman, provides one of the most violent and at the same time one of the most insidious influences that have ever been brought to bear upon the child. No

teacher can be indifferent to the fact that most school children see one or two shows of questionable inspiration every week, while many attend three, four, five or six exhibitions weekly; she can see the result of this frequent attendance in fagged minds and in undesirable mental reactions.

Since the motion-picture house is an irresistible lodestone to the child, and since it does not furnish him with a healthy mental and moral stimulus, it behooves the schools to provide clean visual entertainment.

There are many schools which are attempting to solve the problem of how to obtain and how to present the best type of motion picture. Some endeavor to cooperate with the theater managers in reserving a day a week in the theater for juvenile programs; others, as in Decatur, Illinois, with the help of interested individuals and civic organizations, provide themselves with projectors and show pictures which are suitable and instructional. The time of showing may be regulated as seems best. Saturday evening has been found to be highly successful in some cases, while other schools use the regular school hours.

The author describes with some detail the experiment of a high-school civics class in Decatur which exhibited informational pictures in the high-school auditorium during the noon hour, thus relieving the halls of congestion and disorder as well as contributing actively to the increase of knowledge.

The chapter contains a number of motion-picture programs which have been used satisfactorily in the Decatur schools, in addition to practical suggestions as to where pictures of the right kind are available at slight expense.

It is rather a pity, however, that the possibilities of the motion picture when used in direct and timely conjunction with the textbook in classroom study are barely touched upon. It may be, though, that this vital phase of the subject is reserved for some future treatise.

THE MOTION PICTURE—Yesterday and Today

(Continued from page 131)

based. He grasped, for instance, the fact that in presenting pictures in succession to create the illusion of motion, the movement should be intermittent and that the pictures should succeed each other with enough swiftness to hold one image on the retina until the next came into view. Moreover, the instrument which he invented was the first to use actual photographs.

This enterprising and versatile man was drawn into his investigations partly by the desire to produce something to amuse his young sons and partly by his impatience with the limitations of the photograph and the woodcut of 1860 in serving as an effective advertising medium for the output of his machine factory. He was visionary enough to conceive the idea of portraying in motion the various mechanical movements of his machines. Thus to the end of achieving motion with pictures he bent his abundant energies, experimenting with photographs of his small sons occupied in their nursery.

The result of his efforts was the Kinematoscope. "This machine was a paddle wheel arrangement with the different photographs mounted on the surface of the paddles. The eyepiece was really the eyepiece of a stereoscope and the photographs were the familiar double stereoscopic kind. By means of a knob the pictures were turned toward the eyepiece, the eye gradually adjusting its focus to the advancing picture so that the effect was the same as if it were at rest."

A valuable by-product of Dr. Sellers' labors was the invention of the glycerine

bath, a vast improvement over the old wet-plate process. Dr. Sellers pursued this particular creative work, however, only as an avocation and dropped his experimentation at a time when further effort would without doubt have been most fruitful.

The Grandfather of the Motion Picture

The name which is probably the most familiarly mentioned in connection with the invention of the motion picture is that of Eadweard Muybridge, an Englishman in the employ of the United States Government in California. The casual manner in which he was drawn into his experiments is an interesting example of how small an event will sometimes determine our life-work.

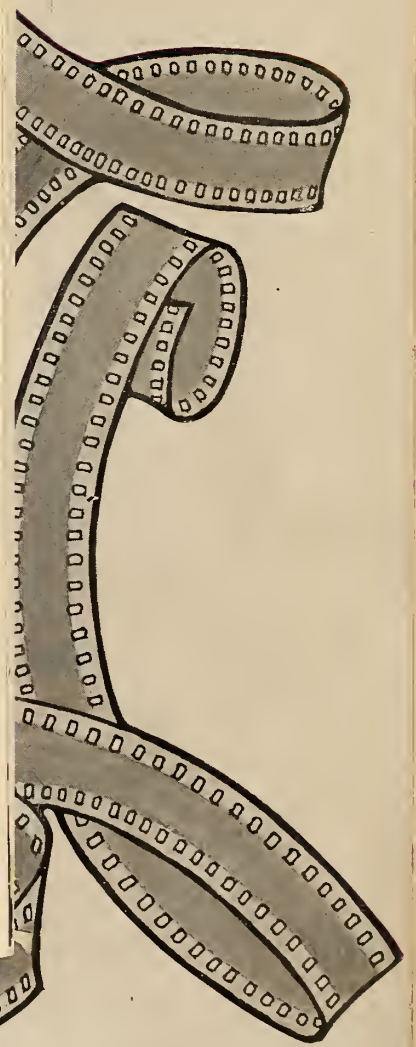
It so happened that in 1872 a group of California horsemen gathered about the race-track of Sacramento became involved in a rather acrimonious debate concerning a horse's gait when racing. Some declared that all four feet were off the ground simultaneously, while others maintained the contrary. Muybridge, a mere innocent bystander, was deputed to settle the discussion by obtaining actual photographic records of the horse when in rapid motion. His experiments very soon assumed more significance than merely the settling of a quarrel, and ultimately Leland Stanford, then governor of California, and the owner of many fine horses, became interested in the project and gave him much valuable assistance.

When Twenty-four Cameras Were Used

After a long period of experimenting, Muybridge finally developed the scheme

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

of using twenty-four cameras set up at intervals of twelve inches along the race-track. The shutters of these cameras were released simultaneously with the passing of the horse by the use of threads placed breast-high, which it broke in its course. To prevent blur and to make the figure of the animal stand out clearly, a white wall was constructed, before which a black horse was ridden or driven.

Muybridge thus obtained twenty-four successive pictures of animal locomotion. Incidentally, he so developed the camera during his series of experiments that he was able to take what was called the first instantaneous photograph in history, actually getting an impression in one six-thousandth part of a second. He also proved that a race-horse is at certain times in its stride entirely clear of the ground.

The next step in the process was to perfect an instrument with which to project his pictures. The machine he eventually evolved was based upon the Lantern Wheel of Uchatius and was provided with condensing and objective lenses. This instrument, which labored under the distinguished name of Zoopraxoscope, was never sufficiently developed to deserve serious consideration.

The investigations of Muybridge created a profound sensation. He was invited to present his pictures in France before a distinguished company, and Marey, the eminent physiologist, in particular became greatly interested. This acute scientist realized that there was a grave defect in the principle on which Muybridge was basing his work. The purpose was to view these photographs in succession as from one viewpoint, but in reality there were twenty-four

different viewpoints; and since the moving object was always in the center of the plate the reproduction showed the object always centrally on the screen with legs in violent movement, but not making any progress, while the background rushed by.

Muybridge continued his researches at the University of Pennsylvania, where in 1887 he succeeded in showing the beatings of a dog's heart, the first known use of instantaneous and motion photography in medical science. His photographic studies, published under the title "Animal Locomotion," are still the authority upon that subject. The University of Pennsylvania, where he accomplished so much of his work, has most suitably honored his memory in a film incorporating his achievements.

A tangible reward for his achievements was given to him in 1893 at the Chicago World's Fair, where he exhibited his machine and pictures and received a certificate. He is considered by many to be the first to work out accurately and scientifically the principles that have made the modern motion picture possible.

Early Synchronization of Music and Pictures

It is a matter worthy of comment that Muybridge consulted Edison as to the advisability of synchronizing his pictures with Edison's phonograph. It was mutually agreed that neither projection machine nor phonograph was sufficiently perfected to make the effort feasible.

The idea of the synchronization of music and pictures did not, however, originate with Muybridge. As early as 1870, Henry Heyl of Philadelphia exhibited before the American Academy

THE MOTION PICTURE

of Music a machine which he called the Phasmatope. The related photographs were small glass plate positives of selected subjects reduced from wet-plate negatives taken from successive poses by an ordinary camera. The device was a revolving skeleton disc, around the periphery of which the glass positives were placed to register accurately as they intermittently came into the camera rays. During the intervals between the rests of the disc a vibrating shutter cut off the light. The evolutions of the dancing figures of the photographs were synchronized with an orchestra of forty pieces.

Steady Progress Evidenced

Meanwhile European scientists were experimenting along the same lines. In 1874, Jannsen used a circular sensitized plate which revolved in the camera to record the transit of the planet Venus across the sun, and secured eighteen pictures — a very remarkable achievement.

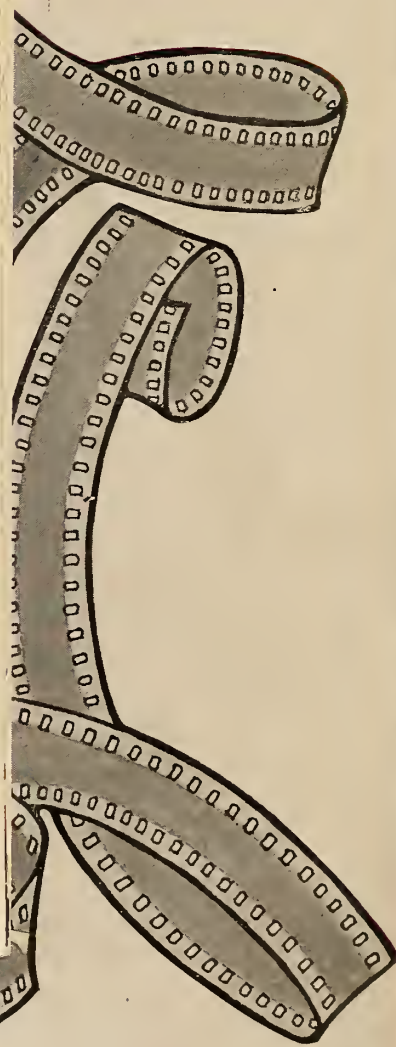
Marey, stimulated by the exploits of Muybridge, improved upon this camera of Jannsen's with his unique photo-

graphic gun, so called from its resemblance to a large revolver. In this strange instrument, which was perfected in 1882, the revolving cylinder carried a disc-shaped sensitized plate set in rotation by the trigger which simultaneously worked the lens shutter. Marey was able to secure twenty-five successive views upon this disc and was consequently able to make extensive analytical studies.

At this same period a German experimenter, Anschütz, was photographing animals and people in successive stages of motion, printing the views on long strips. These long strips were laid around a horizontal wheel enclosed in a dark box, so that the eye could see the pictures on the paper strip only at the moment when the light of a Geissler's tube flashed up. The electric contact was so arranged that, however quickly the wheel was turned, the lights followed one another with the same rapidity with which the pictures followed each other. Here was a perfect moving picture, but with the great defect of having to show the same pictures at each revolution of the wheel.

[The second article in this series on the history of the motion picture will appear in the April issue of VISUAL EDUCATION.]

THE fourth article by Dudley Grant Hays on "Visual Education in the Chicago Schools" will be published in the April number. In his article Mr. Hays will discuss "Correlated Visual Instruction," with the accent on "correlated."



The Scrapbook as an Aid in Health Education

(Continued from page 137)

child to judge his own work intelligently, thereby reducing her direct supervision of the work; by arranging so that each child may occasionally use any odd moments before school or between periods for the scrapbook; by correlating appropriate work with the regular drawing. When all is said and done, is there any project which yields more for the time put in?

Encourage Originality

Suggestions for directing the scrapbook have already been made incidentally. The scrapbook needs direction, but may be in danger of too much supervision. The child should be led to express visually the facts which have been taught, and if possible to express them with some originality. Some of the accompanying illustrations give evidence of our efforts to that end. One fourth-grade boy, in making a page for cereals, used the picture of a Campbell Soup kid at the telephone, and wrote underneath, "I Want Oatmeal." Another used the picture of a Campbell Soup kid with a raised umbrella; under her arm he pasted a little package of Quaker Oats and wrote, "Keep Quaker Oats Dry." Another boy in making a sheet for fruits used a picture of prunes, under which he wrote, "Oh, boy, I wish I had some of them prunes!" (Apologies to the English department!)

The amount of originality shown in the scrapbook must vary with the temperament and training of the children and with the amount of time available.

Children who have worked for years under teaching which develops their originality respond much more readily than those who have spent their days in a made-to-order regimen. In my own work in Malden, only half an hour a week is allowed with each class, which must include my period of instruction as well as the project work. Under these conditions there is very little opportunity to develop much original work, and the success of the scrapbook is therefore very dependent upon the co-operation of the classroom teachers. Many of them do tuck in a little work outside my time, before school, as "busy work" or correlated with drawing, and their contribution is an important factor in obtaining results.

Use of the Hektograph

The hektograph is a very present help, and is a real aid in supplying visual impressions for the scrapbook in subjects where it is not easy to get original expression from the children. They thoroughly enjoy filling in the outlines, and while it hasn't the value of original work, it does leave a strong impression. One little girl, after making the sheet on Cold-in-the-Head, wrote me that she "saw" Cold-in-the-Head one day when she had her feet wet, but that she ran home, got warm and dry, and escaped him! A small boy wrote, "Cold-in-the-Head can't get me. I am too foxie for him."

In supplying hektographed outlines a great deal of work may be left for the child. In a sheet showing that

"Milk Pitcher is happy and Coffee Pot has a grouch," the mere outlines of the pitcher and coffee pot were supplied. Each child drew the faces, cut out the objects, mounted them, and wrote the message underneath.

Sometimes a ready-made picture may be redeemed by requiring the addition of an original rhyme. This was done with our dancing Vegetable Men, in fourth grade, and many of the rhymes were really clever, as the following will indicate:

Jack and Jill went up the hill
And down without a tumble,
For children that eat vegetables,
Are strong and never stumble.

Correlation With Drawing Work

Many parts of the work may be properly correlated with drawing. In Malden this year the drawing supervisor generously undertook the whole making of the scrapbook covers, which produced better work than could have been done under my direction. Pictures of vegetables and fruits painted in the drawing class may later become a part of the health scrapbook, and free-hand drawing or free-hand paper cutting may be used in preparing some subjects.

The scrapbook may take various forms. A loose-leaf or portfolio arrangement is, I believe, the best, be-

cause material may be added at any time, separate sheets may be used for exhibition, and a page which is spoiled does not have to be kept in the completed volume.

Why the Health Scrapbook?

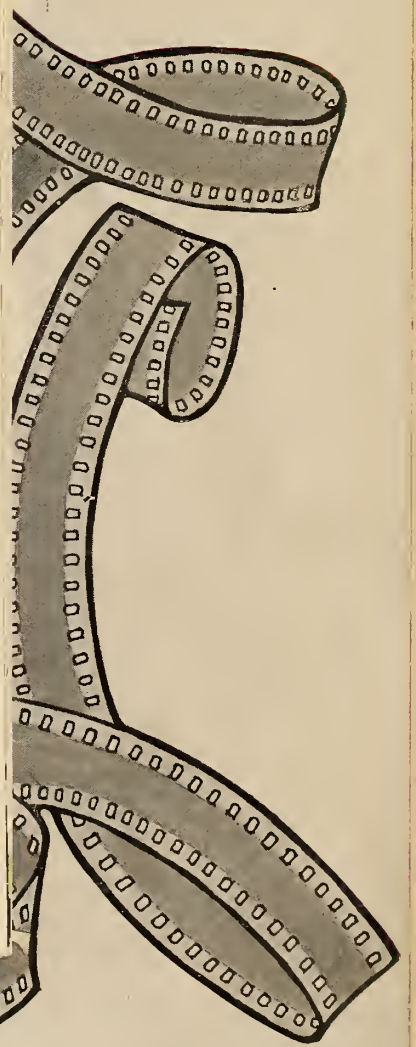
To summarize briefly, we may express the advantages of the scrapbook as follows:

1. It has a strong personal appeal for the child.
2. It helps to sustain interest over a long period.
3. It gives visual impressions in large number and great variety.
4. It supplies repetition without boring the child.
5. It teaches many things incidentally.
6. It teaches things in their relation to each other.
7. It gives opportunity for the child's natural expression of his ideas visually.

There is verily much to be said in behalf of why, when, where and how to use the scrapbook in Health Education! Perhaps, after all, the strongest point for the scrapbook is the personal appeal. The visual impressions there recorded are the child's very own, and to him no one is so important as himself, no one's work so interesting as his.



A BOY is better unborn than untaught.—EMERSON.





The Film Field

THE number of "educational films" produced by the professional motion picture companies is increasing and the quality is steadily improving. A number of such films will be listed each month. Any exchange or producer listed in this department will gladly send full information on his service in general or on any particular film.

In offering these selections, however, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies.

In general, films should be viewed by qualified judges before being shown to school children.

FILMS ON NATURE STUDY AND OTHER SCIENCES

NEPTUNE'S NEIGHBORS—Many of the weird and beautiful inhabitants of the floor of the sea may be viewed in the course of this unusual nature study reel, which is colored throughout. (*p* and *d*, Prizma.) ½ reel.

ANIMAL CAMOUFLAGE—The manner in which nature protects its wild children is a matter of never-ceasing interest. The hermit crab, whose shell blends into the coloring of its native rocks; the praying mantis, which cannot be distinguished from the twigs upon which it rests; the desert lizard, whose coloring enables it to literally disappear into the hot sands, and many others favored in their coloring, are portrayed in this most instructive reel. (*p* and *d*, Pathe.)

BEE CULTURE IN SWEDEN—The Swedish bee is much the same insect as his American brother and lives in much the same way. This picture affords an interesting study of this ever-interesting insect, and has the added interest of its foreign origin. (*p*, Swedish Biograph; *d*, National Non-Theatrical Motion Pictures.)

REINDEER—This reel will be a source of information to those who consider this animal a sort of a mythical beast used only at Christmas time as an accomplice of Santa Claus. We find that caring for herds of reindeer is much like caring for flocks of sheep and that the animal has been much domesticated, specially in Scandinavia, where it is cherished because it yields excellent milk, food, clothing and other commodities. (*p*, Swedish Biograph; *d*, National Non-Theatrical Motion Pictures.)

SCIENCE AT HOME—Here are to be found demonstrations of some simple electrical experiments, all of which can be executed at home by amateurs with no other material than can be easily found in any American home. The informational value of such a reel is obvious, especially when it is exhibited to boys and young men of an experimental turn of mind. (*p* and *d*, Kinetograph Co. of Amer.)

COME, KITTY, KITTY—One critic says of this picture that it contains some of the very best animal photography ever attempted. The views are of various members of the cat family and are taken in the open, without any realization on the part of the animals that they were under observation.

In the brackets following the sketch are given the names of producers and distributors, the producer being indicated by the letter "p" and the distributor by "d." For addresses consult lists in this issue. Always write to the nearest exchange, when given, otherwise to the producer. All entries are 1 reel (1,000 ft.) in length unless otherwise specified.

Lions, leopards and bob-cats lend their graceful, sinewy bodies easily to the art of the camera, and the result is a picture of unusual excellence. (p, Austin Film Library, Inc.; d, Harry Levey Service Corp.) ½ reel.

FOR THE GEOGRAPHY LESSON

WATCHING THE WAYANGS—Probably few people know that Wayangs are Javanese marionette shows. In addition to portraying in a delightful manner the operation of this primitive form of entertainment, the reel presents to its audience typical views of life in this far-away island. (p, Burton Holmes; d, Famous Players-Lasky.)

ALONG THE RIO GRANDE—The country one traverses along the Rio Grande is much of it desert land, the buildings are constructed in Indian style, and Indians and Mexicans are the individuals most frequently met. (p, Burton Holmes; d, Famous Players-Lasky.)

STAMBOUL—Burton Holmes well knows how to inject human interest into his pictures. Stamboul, the Turkish quarter of Constantinople, is reeking with all kinds of interesting things and with all kinds of strange people. (p, Burton Holmes; d, Famous Players-Lasky.)

MARVELOUS MANHATTAN—Blasé New Yorkers will surely enjoy this kind visualization of their own city, and those whom fate has cast in the small town will also enjoy these views of the Mecca of all small-town travelers. Atmosphere and notable buildings and places are all combined to the marked advantage of this reel. (p and d, Famous Players-Lasky.)

UNKNOWN SWITZERLAND—Switzerland is no longer an unknown country, however, for such pictures as this—pictures which present its white-capped mountains, picturesque valleys and slow-moving glaciers—are making this beauty-spot of Europe familiar to all. (p, Bruce; d, Educational Films Corp.)

DAWN TO DUSK IN EGYPT—One can see much in twelve hours, especially when so efficiently conducted as in this travelogue. Views of the pyramids, the desert, the Nile, buildings as old as antiquity, together with recent excavations, are all combined to form a very complete and vivid impression of this ancient country. (p and d, Educ. Films Corp.)

SO THIS IS LONDON—The color and atmosphere that go to make London town the city that it is are well brought out in this reel, which pictures such places of historic and popular interest as Piccadilly Circus, The Houses of Parliament, Nelson Monument, and the picturesque guards of St. James' Palace. (p and d, Prizma.)

AUTOING THROUGH AUSTRALIA—The camera has not as yet familiarized its constituents with the scenery of Australia, and consequently this reel will be of unique interest to many. Here are shown not only various geographic features of interest, but also unusual bits of color and life, such as the destruction of a eucalyptus forest by fire. (p, Austin Film Library, Inc.; d, Harry Levey Service Corp.)

SOUTHERN STATES—The purpose of these two reels on the Southland is to give the pupil an appreciation of its surface features and to indicate something of its climate,

agriculture and industries. Motion pictures show the level sandy belt bordering the sea, the Florida Keys, the foothills of the Appalachians. The mines, the manufactures and the plantations of the South are pictured with illuminating detail. Typical cities visualized are Savannah, Tampa, Mobile, Birmingham, Galveston and New Orleans. A foundation is laid for class discussion on the reasons for their growth and the economic future of the South. (p and d, Society for Visual Education.)

FOR THE LITERATURE CLASS

LIFE AND WORKS OF RICHARD WAGNER—A visualization of the career and productions of this great composer, which should prove both informational and entertaining. (d, Atlas Educational Film Co.)

KING LEAR—Although this film adaptation is not a recent one, yet it is a creditable presentation of this great tragedy and will doubtless fit well into the school curriculum. (d, University of Indiana.)

RIP VAN WINKLE—A film dramatization of Washington Irving's beloved tale with Thomas Jefferson, the son of the famous Joseph Jefferson, in the title rôle. (p, Ward Lascelle; d, Pathé.)

FOR THE CURRENT EVENTS CLASS

PATHE REVIEW 136—This reel offers the usual combination of varied subjects: a travelogue, "East of Suez"; slow-motion analysis of running youngsters; the manufacture of matches, and Dutch peasants on a holiday. (p and d, Pathé.)

PATHE REVIEW 138—These Pathé reviews are always replete with informational scenes. In this reel may be found a thrilling alligator hunt in the Everglades of Florida; colored views of Jerusalem which make very evident the beauty of this venerable city; a humorous slow-motion study of facial expressions entitled "Two Men and a Pickle"; scenes in the remote mountains of Portugal, and views of a famous pool of water in the island of Bermuda. (p and d, Pathé.)

PATHE REVIEW 139—Colored views of the unexplored country of Abyssinia and of its barbarous natives; snapshots of a fox farm where the wild little creatures are raised for their fur; glimpses of "The Week of Forgiving," an annual ceremony in Brittany; a pictorial explanation of the water supply system of New York City, and slow-motion pictures of a bear in the New York Zoological Park, constitute a remarkably interesting reel. (p and d, Pathé.)

KINOGRAM 2115—Among the glimpses of news pictured in this reel may be found those of the National Agricultural Conference at Washington, D. C.; tobogganing in St. Paul; the superphone, a new telephone; the smallest tractor in the world pulling train of cars in Stockton, Calif.; unveiling of portrait of Hughes in Washington, D. C.; underseas craft at Bridgeport, Conn.; and other timely events. (p, First National; d, Educ. Films Corp.)

INTERNATIONAL NEWS NO. 9—This reel is very full of news. Views of the Leviathan; the reception tendered the King and Queen of Greece by the Boy Scouts; Sir Ernest Shackleton; Cardinal Dougherty sailing for election of Pope; experimentation

ATION

ts • 100 a Year

THIS ISSUE: *Playing the Health Game*

VISUAL EDUCATION

with giant war missiles on Atlantic; Japanese soldiers in training; storm in New York City; fire in Winnipeg, Canada; and other scenes make up the footage. Users of the film are advised to cut the cartoon. (p, International; d, Universal.)

PATHE NEWS NO. 4—Wintry scenes of skaters, ice-yachting, and Rainier National Park are contrasted with the Pasadena annual floral parade. In addition there are views of the observances in connection with the third anniversary of the death of Colonel Roosevelt; the unveiling of the statue of Joan of Arc in Washington; the second anniversary of the League of Nations. (p and d, Pathé.)

CIVICS

GROWTH OF CITIES AND THEIR PROBLEMS—This reel is intended to make pupils realize, more vividly than by the use of textbooks and stories, some of the common problems attending the growth of communities from small towns or villages to thriving cities. Problems as well as solutions are visually suggested. Questions relating to transportation, public safety, sanitation, education, law and order, recreation, and similar matters of civic interest are studied through moving pictures. The reel furnishes an excellent basis for valuable discussion and instruction in practical civics. (p and d, Society for Visual Education.)

HOW IT IS DONE

WELFARE WORK OF THE TENNESSEE COAL, IRON & RAILROAD COMPANY—This picture shows in detail what is being accomplished in providing educational and recreational facilities for employees and their children. (d, National Safety Council.)

BIG TREES OF CALIFORNIA—The trees of California are a seven days' wonder for their beauty, age and variety. This reel is an unusual pictorial exposition of the lumber industry in the Sierras and permits you to witness the downfall of great trees before the relentless axe. (p, Burton Holmes; d, National Non-Theatrical Motion Pictures.)

THE WORK OF A FOREST RANGER—There is much that is picturesque about the lives of the men who guard our forests, and this view of their routine duties should prove interesting in its revelation of just what it means to keep a forest from destruction. (d, United States Dept. of Agric., Bureau of Plant Industry.)

DATES, AMERICA'S NEW FRUIT CROP—This fruit, which one always pictures with the romantic accessories of Arabian Nights, is now being grown, unpicturesquely but very effectively, in the hottest, driest irrigated

valleys of the Southwest. This reel visualizes the details of the industry. (d, United States Dept. of Agric.)

MAKING BLUE PRINTS—A film which explains various methods of making blue prints, from the simple sun frame and bath frame up to the Pease automatic electric blue printing, washing and drying machines, which can produce a half-mile of blue prints per day—thirty-six inches wide. (d, Atlas Educational Film Co.)

IF YOU DESIRE RECREATION

ENCHANTMENT—A well-filmed little "flapper drama" with Marion Davies in the leading rôle. Within the story is a beautiful dramatization of the Sleeping Beauty done by that consummate artist, Joseph Urban. Children as well as adults will love this exquisite visualization of the loved fairy tale. (p, Lasky; d, Famous Players-Lasky.) 6 reels.

CLAY DOLLARS—The decorative Eugene O'Brien as a poor young man trying to claim a dubious inheritance in a small country town provides much interest and amusement. (p and d, Select Pictures Corporation.) 5 reels.

R. S. V. P.—One always knows what type of characterization to expect from Charles Ray and never does he disappoint his audiences. In this case he is a poor artist who has to share his dress suit with his roommate, a situation resulting in many complications. (p, Arthur S. Kane Pictures Corp.; d, First National.) 5 reels.

IN CONNECTION WITH THE SERMON

MOSES LEADING THE ISRAELITES OUT OF EGYPT—A reel that should be of special aid in connection with Sunday-school work. (d, Lea-Bel Co.)

ELISHA AND THE SHUNAMMITE—This story of the restoration of the child of the Shunammite, alive and well, to the arms of his rejoicing mother is one of the most touching to be found in the Old Testament. (d, Atlas Educational Film Co.)

THE CREATION—An unusual film which visualizes the beginning of everything in a highly artistic and reverent manner. (p, Sacred Films Corporation.)

CAIN AND ABEL—The classic story of the first murder is pictured dramatically and accurately. Such a film as this beautiful pictorial narrative sets a very high standard for other producers of religious subjects. (p, Sacred Films Corporation.)

Reference List of Producers and Distributors

Atlas Educational Film Co.
111 South Blvd., Oak Park, Ill.
Harry Levey Service Corp.
220 W. 38th St., New York City
International Church Film Corp.
91 W. 23rd St., New York City
Indiana University
Dept. of Visual Education
Bloomington, Ind.
Kineto Co. of America
71 W. 23rd St., New York City
Lea-Bel Co.
804 S. Wabash Ave., Chicago, Ill.

National Non-Theatrical Motion Pictures, Inc.
232 W. 38th St., New York City
National Safety Council
Continental & Commercial Bank Bldg.
Chicago, Ill.
Sacred Films, Incorporated
Burbank, Calif.
Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago, Ill.
U. S. Dept. of Agriculture
Washington, D. C.

Reference List of Film Exchanges

(Only producers and exchanges whose productions are named in this month's instalment of "The Film Field" are listed on this page.)

Reference List of Film Exchanges

EDUCATIONAL FILMS CORPORATION

Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex.
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Calif.
Louisville, Ky.
Milwaukee, Wis.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York City
Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
St. Louis, Mo.
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

PRIZMA

Baltimore, Md. Federated Film Exchange,
412 East Baltimore St.
Boston, Mass. Motion Pictures Distribut-
ing Corp., 214 Elliot St.
Chicago, Ill. Celebrated Players Film Corp.,
207 South Wabash Av.
Cincinnati, Ohio. Standard Film Service Co.,
Film Bldg., Seventh and Main Sts.
Cleveland, Ohio. Standard Film Service Co.,
Sloan Bldg.
Dallas, Tex. Specialty Film Co.,
107 South St. Paul St.
Denver, Colo. Supreme Photoplays Co.,
1446 Welton St.
Detroit, Mich. Standard Film Service Co.,
Film Bldg., Elizabeth St.
Kansas City, Mo. Standard Film Corp.,
12 East 17th St.
Milwaukee, Wis. Mid-West Distributing
Co., Toy Bldg.
New Orleans, La. Creole Enterprises,
1401 Tulane Ave.
New York, N. Y. Commonwealth Film Corp.,
729 Seventh Av.
Philadelphia, Pa. Masterpiece Film Attrac-
tions, 1329 Vine St.
San Francisco, Calif. Co-operative Film
Exchange, 107 Golden Gate Av.
St. Louis, Mo. Skouras Bros. Enterprises.

FAMOUS PLAYERS-LASKY CORP.

Albany, N. Y.
Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex.
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
Kansas City, Mo.
Los Angeles, Calif.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York City
Oklahoma City,
Okla.
Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
Portland, Me.
Portland, Ore.
St. Louis, Mo.
Salt Lake City,
Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

FIRST NATIONAL EXHIBITORS

Atlanta, Ga.
Boston, Mass.
Chicago, Ill.
Cleveland, Ohio
Buffalo, N. Y.
Dallas, Texas
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Calif.
Louisville, Ky.
Milwaukee, Wis.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York City, N. Y.
Oklahoma City, Okla.
Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
Richmond, Va.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

SELECT PICTURES CORPORATION

Albany, N. Y.
Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colo.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Calif.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York City, N. Y.
Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

UNIVERSAL FILM EXCHANGES

Albany, N. Y.
Atlanta, Ga. (Consol. Film & Supply Co.)
Baltimore, Md.
Boston, Mass. (Amer. Film & Supply Co.)
Buffalo, N. Y.
Butte, Mont.
Charleston, W. Va.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex. (Consol. Film & Supply Co.)
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
El Paso, Tex.
Fort Smith, Ark.
Milwaukee, Wis.
Minneapolis, Minn.
Newark, N. J.
New Orleans, La.
New York City
Oklahoma City, Okla.
Omaha, Neb.
Philadelphia, Pa.
Pittsburgh, Pa.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

PATHE EXCHANGE, INC.

Albany, N. Y.
Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colo.
Des Moines, Iowa
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Milwaukee, Wis.
Minneapolis, Minn.
Newark, N. J.
New Orleans, La.
New York City
Oklahoma City, Okla.
Omaha, Neb.
Philadelphia, Pa.
Pittsburgh, Pa.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

Indianapolis, Ind.
Jacksonville, Fla. (Consol. Film & Supply Co.)
Kansas City, Mo.
Los Angeles, Calif.
Memphis, Tenn.
Milwaukee, Wis.
Minneapolis, Minn.
New Haven, Conn. (Big U Film Exchange)
New Orleans, La. (Consol. Film & Supply Co.)
New York City (Big U Film Exchange)
Oklahoma City, Okla.

Omaha, Nebr.
Philadelphia, Pa. (Interstate Films, Inc.)
Pittsburgh, Pa.
Portland, Me. (Amer. Feature Film Co.)
Portland, Ore.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Sioux Falls, S. Dak.
Spokane, Wash.
Washington, D. C. (Wash. Film Exchanges)

New Visual "Tools" for the Educator's Kit

Visual
Teaching
Becomes
Increasingly Easy

It is a matter of growing encouragement to visualists everywhere to note the strides that are being taken in the production of visual equipment. Everything in the way of visual tools is being made so simple and convenient that today it is a real joy for any teacher to work with these mechanical means of vitalizing the lesson.

An interesting development of this sort is afforded by the automatic slide-changer feature which characterizes the Automatic Sciopticon of the McIntosh Stereopticon Company. The slide is dropped in at the top of the stage, resting on a little shelf, where it is held by the light pressure of two springs. This shelf, as wide as the slide is thick, is so arranged as to allow a constant circulation of air on both sides of the slide, thus preventing overheating. It is possible to insert a hat-pin or a slender wire immediately in front of the slide and point to any part of the slide desired, the enlarged shadow showing on the screen as a long pointer.

But the greatest advantage is that when one slide is inserted immediately behind the first, it pushes the latter forward so that it drops off the shelf into a felt-padded receiver below. Not only is the change from one picture to the next instantly effected, but the eye-strain of the old side-to-side change of the picture is eliminated, as well as the annoyance of having to reach over the lantern to remove a slide from the carrier on the opposite side, with its attendant finger-marking of slides.

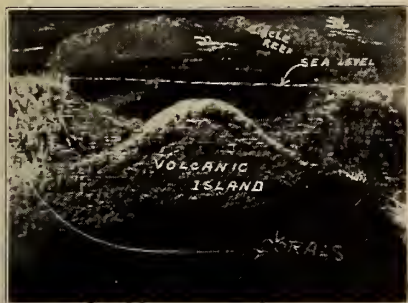
Another
Forward
Step in
Wall Maps

Not many teachers have the time or the ability to sketch the outline of a continent on the blackboard whenever it is needed. With a sense of relief and gratitude the paper stencil and chalk dust makeshifts were discovered and applied, and the required outlines laboriously obtained — a performance which had to be repeated each time the map was needed. The next step was to make this map on flexible slated cloth so that the outline, such as it was, would remain permanent.

The latest development, however, is seen in such a device as represented by the Cartocraft slated maps published by the Denoyer-Geppert Company, in evidence at that company's exhibit during the recent convention of the Department of Superintendence in Chicago. On the black slate surface the outline of state, country or continent appears in yellow, ready to be bent to the purposes of any specialized map—products, rainfall, political, population, etc.—that may be called for by the day's lesson. Invisible except on close inspection, details such as mountains, rivers, lakes and locations of cities are shown in glossy black, making it easy for the teacher to bring these features to the attention of pupils when necessary by merely tracing with crayon over the almost imperceptible lines. Mounted in sets on spring rollers, these flexible maps have the added advantage of leaving the blackboard free for other lessons.

SCHOOLFILMS

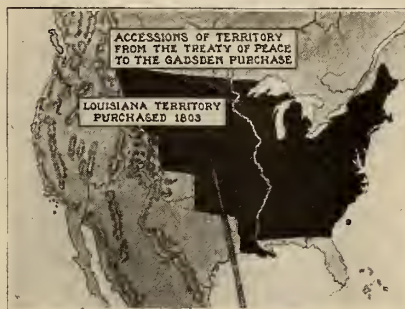
In Thumb-Nail Outline



A "chalk talk" picturing the gradual development of coral reefs

Trans-Mississippi Trails

Portrays the fourth step in the "westward movement," namely, the occupation of the trans-Mississippi region prior to the Civil War. Indians were subdued, the Erie Canal linked the Great Lakes with the Hudson, and thousands of immigrants went directly to the Central Plains. Large groups pushed beyond the Mississippi and established farms and ranches as far west as the Rockies. The reel shows something of the geographical location of the various routes, the agricultural demands, and the political lines of the Missouri Compromise. The settlement and annexation of Texas, the Mexican War campaigns, and the addition of New Mexico, California, and the Gadsden Purchase are indicated by animated maps.



Visualizing the territorial expansion of the United States

Western Plateaus—Regional Geography

This reel visualizes the nature of the Western Plateau region; the physiography and climate of the Colorado Plateau, the Great Basin and the Columbia Plateau; the life and interests of the people; methods of irrigation, by which a waste of land has been made habitable; the growth of mining centers; railroad expansion; the effect of harnessing the waters to furnish manufacturing energy; the accomplishments of dry farming, etc. In short, the film succeeds in conveying an appreciation of the fact that the industrial achievement of the people of this region is due to a realization of geographic law.



A copper mine at Ely, Nevada

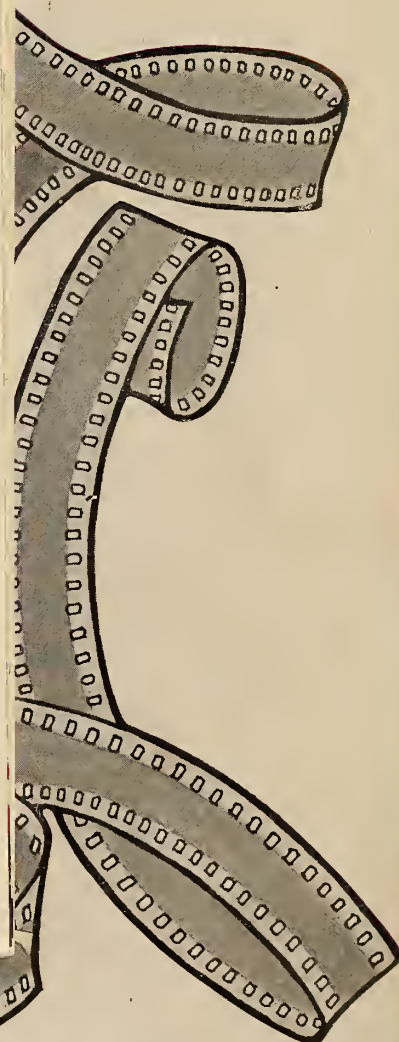
A specimen syllabus will be sent to any teacher for any of the reels here outlined

Order SCHOOLFILMS and give your school the full benefit of

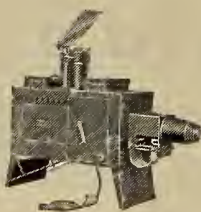
VISUAL EDUCATION

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



POST CARD PROJECTION

Also
Pictures
Reading Matter
And
Lantern Slides

SPENCER DELINEASCOPE MODEL 3

Possesses many new and original features. Transposing device for handling the lantern slides. Dissolving view on the screen with but one outfit, not two as in others. It is a perfect Stereopticon, right up to the minute.

Catalogue K-16 describes it

SPENCER LENS COMPANY
BUFFALO, N. Y.

What Others Say:

"It is a monument of thorough and conscientious work, and more complete and up-to-date than anything else I have seen on that subject. It will help teachers greatly."

The World Remapped

By R. Baxter Blair

An 80-page book summarizing the changes in World Geography by continents. Every teacher of geography and history should have it on her desk for ready reference. Any teacher would gladly pay several dollars for this reference book on world changes.

Send 20 cents in stamps or coin.

USE COUPON

DENOYER-GEPPERT COMPANY

Scientific School Map Makers

Appliances for Visual Instruction

460 E. Ohio Street, Chicago

Name

Grade

Address

VE 3-22

FREE NATURE EDUCATION

(Continued from page 141)

teacher to give a lecture with the minimum of effort. The popularity of these prepared lectures and the many appreciative comments from teachers reflect their real usefulness. The economy to the teacher is obvious. Nearly 43 per cent of the slides lent are in these prepared lecture sets, although they comprise only about one-tenth of the number in the general file. In all there are thirty-seven of these sets, twenty of which have been duplicated. The subjects of the lecture sets are as varied as in the regular lecture courses, including geography, history, industries, literature, art, and natural science.

The principal limitation on the use of this material at present is the lack of facilities and projection apparatus in the schools. The school authorities are slowly remedying the situation, however, and the demands of the future will be greatly increased. As it is, 182 public schools of the city are being served regularly, and the number of loans—the best index of growth—has increased from 1,470 in 1919 to 3,963 in 1921, or about 190 per cent.

There can be no doubt but that this form of visual education is filling a real need of the teachers.

Education for the Blind

A specialized branch of the Museum's educational work is the instruction for the blind which has been developed through a special endowment, the Jonathan Thorne Memorial Fund. The blind children in New York City are taught in the same public schools as normal children. They are grouped in sight conservation classes and taught by trained teachers under the guidance

of a special supervisor. In the Museum's program of visual education special provision is made for these children. In consultation with the Supervisor for the Blind, informal talks which can be illustrated with actual specimens or with apparatus are prepared by the Museum staff under such titles as "Birds of Our Parks," "Indians of the Plains," "Animals That Give Us Clothing," "Sea People and Their Castles," "The Change of Seasons."

A list of the proposed topics is sent to the teachers. Each teacher then chooses the subjects she wishes her class to hear and the dates upon which she can most conveniently visit the Museum. On the appointed day the class comes to the Museum for the talk. The small number of pupils—from nine to twelve in a group—makes it possible for each child to "see" carefully every article under discussion. These talks are planned both to supplement the prescribed school work and to add interest and general knowledge to the life of the blind child.

The results from this work are gratifying. Often they are read in the children's happy faces. Again, they are seen in the direct expression of these boys and girls in essays based on the lesson. One teacher writes: "General class instruction is easier because of their visits to the Museum. Children of little experience in life and meager opportunity for general information speak with some ease and familiarity of animals, birds, people and customs about which they have been informed under your guidance. I thank you heartily in behalf of these children, who scarcely realize to what extent you are broadening their horizon."

Conclusions Concerning Children's Lectures

For fifteen years as Curator of Public Education I have had a responsible part in shaping the lecture service of the Museum. This experience, which includes contact with pupils and students of all grades, with teachers holding many viewpoints, with lecturers trained and untrained, has established certain opinions which I here set down in the hope that my conclusions in regard to lectures for children may prove of some value to others.

First: That a lecture for children, to be successful, should not exceed one hour in length.

Second: That the subject matter should be presented in simple form and language, and that the pictures should include one or more illustrations of things within the experience of the child.

Third: That while it is comparatively easy to secure lecturers who can speak satisfactorily to adult audiences, it is difficult to find lecturers with the child's point of view and expression.

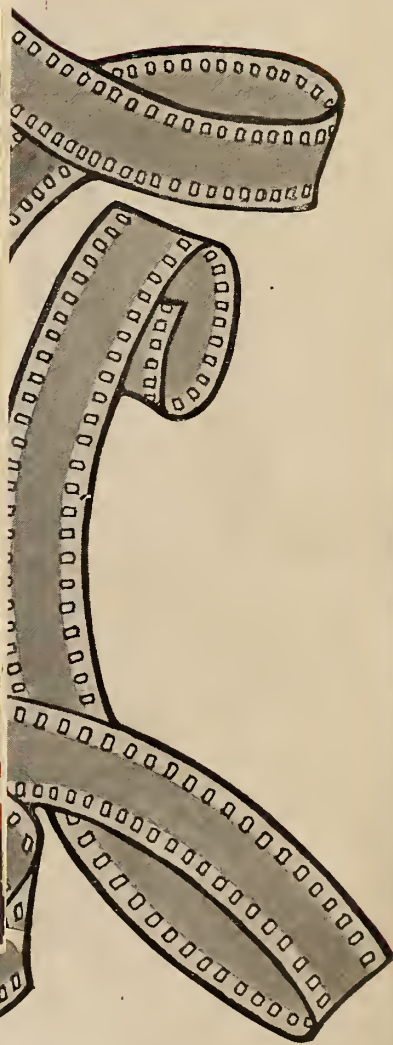
Fourth: That there are many subjects which can be more effectively presented with slides than with motion pictures.

Fifth: That the most effective lecture for teaching purpose is a combination of slides (forty minutes) and motion pictures (twenty minutes), in which the film comes at the end and mainly supplements the data presented by the slides.

In the foregoing article we have presented the principal features of the methods of visual education employed by the American Museum of Natural

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

History. We make no claim that they are new to education. They have been modified to meet the conditions in New York City. The Museum's wealth of material in its exhibition and study collections, which its men of science have brought together from all parts of the world, its miniature collections which are sent to the schools, and its extensive series of negatives and slides freely available for school use, give the New York child a rare opportunity to visualize his geography and history lessons—which in a measure is some compensation for his lack of contact with the outdoor world.

We believe that visual education is only in its infancy, that it should be developed energetically, and that the museums of today have a distinct duty to perform in seeing that its development shall be along lines which will advance the course of public education.

THE RICE INDUSTRY (Continued from page 157)

ery is extensively used in the cultivation of rice in the United States, although the various steps in the process—the preparation of the soil, the planting, tending and harvesting—are the same as they have been from time immemorial. First is presented the farmer stirring up the soil with discs and harrows preparatory to planting the seed, which is done by a machine drill depositing the seed at the proper depth and at the correct interval. Closeups of the machinery make very evident the improvement of this modern method over the painstaking hand method of the Orient.

The rapid progress of the reel brings us next to the flooding of the fields. Since rice is a descendant of shore grass, it demands much moisture and during a certain period of growth must be kept under water. At this period of development, the raising of rice becomes more or less a maritime affair. Views are afforded of

the huge pumps used to force the reluctant water into the irrigation ditches and thence into the fields. Before harvesting all this water is drained off.

The harvesting scenes greatly resemble those on a great wheat ranch. After an enormous harvesting machine has cut and bound the grain in one operation, the shocks and the graceful stalks which we were shown in a beautiful closeup are caught in the greedy clutches of the threshing machine, where they are broken and demolished. The grain is then sacked and made ready for shipping to the mill.

The modern mill performs efficiently and on a large scale what the native achieves with endless toil. Bins guard the precious grain until the time comes for it to be stripped from its outer husk. Before it emerges triumphantly from its paddy, however, it goes through many varied steps, of which one of the most interesting is the removal of the fine cone meal, a most nutritious part of the grain. It seems a strange anomaly that in order to polish the grains, the polish they already have must be taken off by brushes. Asiatic peoples, who are content to eat their rice without the white and gleaming appearance of the kernel, obtain much more food value. Finally, the grains are separated according to size, sacked and shipped to market—untouched, as a subtitle informs us, by human hands.

At the end of the reel there comes, together with much additional information concerning the value of rice as a food, a visualized recipe showing how to cook it properly. There is thus, in addition to the strong informational appeal of the picture, a more or less compelling physical appeal which may, no doubt, prove very effective.

While there is nothing extraordinary either in the photography or in the treatment of subject-matter to distinguish this film especially above the multitude of other good industrial films, yet it contains so clear a pictorial exposition of a very important industry that it is well adapted to the school curriculum.

Released by Harcol Educational Films Company.



SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

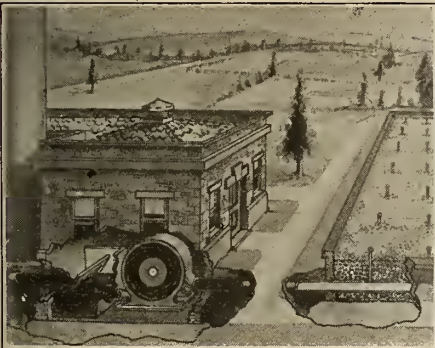
**The
Industrial Film Division
of the
Society for Visual Education**
specializes in the production of high-class films for
Sales Promotion Propaganda
Advertising Welfare
Instructional Purposes

Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.

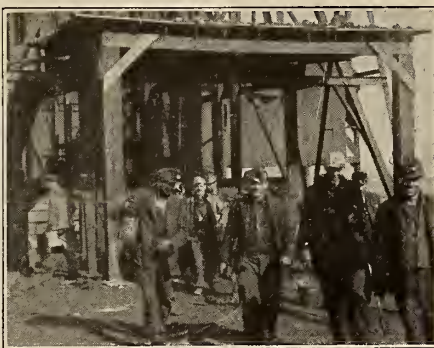
We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

**INDUSTRIAL FILM DIVISION
SOCIETY FOR VISUAL EDUCATION, Inc.**
806 W. Washington Blvd., Chicago



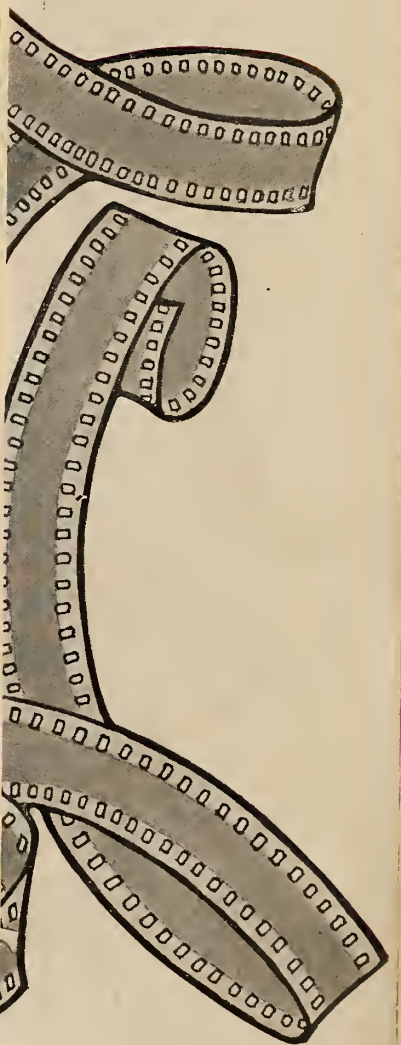
TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

French with its Importance, Prestige and Universality, stands today as a sign of Thorough Education and Refined Culture.

LE FRANÇAIS POUR TOUS

Subscription \$2.50 per year.
35c per copy.

The only French magazine published entirely in French in the United States of America.

ESPECIALLY ADAPTED FOR THE
TEACHER AND STUDENT
OF FRENCH.

LE FRANÇAIS POUR TOUS

Published under the auspices of the Alliance Française of Detroit, in order to bring about a better understanding between the United States and France, and to provide the American French teacher, French student, and all lovers of French with the best available French reading matter at a nominal cost.

Le Français Pour Tous
offers monthly the best French
Short stories Novels
Serials Travels
Anecdotes Cartoons
Illustrations Hints for the
Cooking recipes French Students
Jokes Actualities
French puzzles and contests
with prizes

Articles of especial interest to teachers and students of French contributed by prominent Professors of American Universities.

In each issue one of the most popular French songs published with words and music.

LE FRANÇAIS POUR TOUS PUBLISHING CO.

131 Junior College Bldg.
Cass, Warren and Hancock Aves.
Detroit, Michigan

YOSEMITE AS A TEACHER

(Continued from page 151)

peated questions on natural history, while others deal with some particular animal or bird.

Regular office hours are maintained during the day by the nature guides at the superintendent's office in order to answer the questions of visitors. A flower show is also maintained where the different wild flowers, trees and shrubs are exhibited, each properly labeled and displayed.

In addition to the nature guide service, the University of California, through its Extension Division, has given three series of the popular Le Conte Memorial Lectures in Yosemite and will continue the series this coming summer.

A permanent park museum is now under way and will be open this year. Extensive collections of Indian baskets, objects of historical value, mounted specimens of bird and animal life, geological specimens and specimens of trees and flowers, form its interesting exhibits.

CLASSIFIED ADVERTISING

AGENTS AND SALESMEN

\$100 weekly possible through our exclusive representative plan. Fastest selling Ford accessory on market. "Masco" Splash Fender for front of Ford car eliminates rattling of front fenders, prevents radiator, lights and front of car from becoming mud-splashed, induces greater volume of air into radiator, reflects lamp's rays onto road in night driving, and beautifies lines of car, putting Ford car into higher-priced class. The Ford car being the only car without a splash pan protection, every owner wants this essential attachment. Any one can attach fender in few minutes. Retails at \$6.50. Send \$4.00 for agent's sample and contract application for territorial rights. Give references. Mayer Auto Accessories Corporation, Manufacturers, 333-335 Washington St., Buffalo, N. Y.

FOR SALE—SLIDES

SLIDES—SLIDES—SLIDES—SLIDES—MADE FROM anything and everything. S. Leon & Bro., Makers of Hi-Art Durable Lantern Slides for every purpose. 207 West 48th Street, New York.

FILMS

FILMS FOR RENT—Suitable for school, church and social uplift societies. One dollar per reel. Write for list. Sanor Film Company, Kankakee, Illinois.

Printing
and
Advertising
Advisers



*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

Day and Night
Service
All the Year
Around

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed it is our opinion you have not done your duty by your institution or yourself until you have learned about the service Printing Products Corporation gives and have secured prices.

*We ship or express to any point
or mail direct from Chicago*

Make a Printing Connection with a Specialist and a Large and Reliable Printing House.

You Secure From Us

Proper Quality — Quick Delivery — Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of "Visual Education"
what they think of our service and prices.*

PRINTING PRODUCTS CORPORATION

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

Artists—Engravers—Electrotypers
English and Foreign Languages

Polk & La Salle Streets

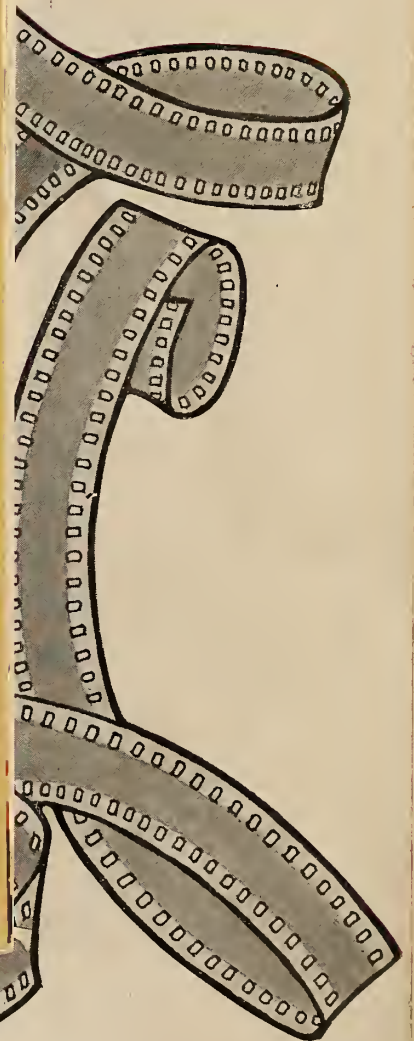
CHICAGO, ILL.

TELEPHONE
Wabash 3380
Local and Long Distance

IF YOU SAW IT HERE, PLEASE SAY SO

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

*Unnecessary risk in Portable
Projection is eliminated when you use*

EASTMAN SAFETY FILM

Specially made for just this type of work, it is safe—identifiably so. The words “Eastman” “Kodak” “Safety” “Film” appear on the film margin at ten inch intervals.

Furnished in two widths, $1\frac{3}{8}$ inches and $1\frac{1}{10}$ inches—Eastman perforation.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

VISUAL EDUCATION

ATION

ts • 1⁰⁰ a Year



*"Clean Up or Be Cleaned Up"—Says
the Public to the Film*

The Future of the Serial

*Sequoia and General Grant National
Parks*

*The Motion Picture—Yesterday and
Today*

Correlated Visual Instruction

The Picture Hour

The Films in Review

"Here Are Books"

The Film Field

Visual Activities the World Over

*How the Graph Aids Lame or Lazy
Mathematics*



APRIL 1922

Published by the
Society for Visual Education, Inc.

• 15 cts 1⁰⁰ a year



THIS ISSUE: *Playing the Health Game*



© K. V. Co.

BUFFALO, YELLOWSTONE PARK

***Interest
Your
Pupils***

***In Spite of
Spring's
Distractions***

THE KEYSTONE SYSTEM FOR VISUAL EDUCATION WILL HELP YOU

600 stereographs—bi-nocular photographs showing depth, distance, perspective—used a few each day, make the lesson enjoyable.

600 lantern slides, duplicating the stereographs, furnish review material.

Slides and Stereographs arranged in convenient cabinets.

A Teacher's Guide, fully indexed and cross-referenced, points out several thousand classroom uses.

Write for classroom demonstration.

KEYSTONE VIEW COMPANY, Inc.

*"Originators of Systematized
Visual Education"*

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*

IF YOU SAW IT HERE, PLEASE SAY SO

Get Acquainted With Your Neighbor You might like him

You may join your neighbors in your own community, and in many others, in a nation-wide movement for

Man-Building

Business-Building and

Community-Building

This opportunity is offered you through associate membership in

THE BUSINESS SCIENCE SOCIETY

An organization of men and women who are studying natural laws related to human activity, and who believe in the *PRINCIPLE OF SERVICE*.

May we tell you more about it? Address

MARTIN L. ZOOK

Division of Associate Membership, The Business Science Society
77-79-81 Madison Avenue MEMPHIS, TENN.

THE AMERICAN MATHEMATICAL MONTHLY

OFFICIAL JOURNAL OF

The Mathematical Association of America

Is the Only Journal of Collegiate Grade in the Mathematical
Field in This Country

This means that its mathematical contributions can be read and understood by those who have not specialized in mathematics beyond the Calculus. The Historical Papers, which are numerous and of high grade, are based upon original research.

The Questions and Discussions, which are timely and interesting, cover a wide variety of topics.

Surveys of the contents of recent books and periodicals constitute a valuable guide to current mathematical literature.

The "Topics for Undergraduate Mathematical Clubs" have excited wide interest both in this country and in Great Britain.

The Notes and News cover a wide range of interest and information, both in this country and in foreign countries.

The Problems and Solutions hold the attention and activity of a large number of persons who are lovers of mathematics for its own sake.

There are other journals suited to the Secondary field, and there are still others of technical scientific character in the University field; but the monthly is the only journal of Collegiate grade in America suited to the needs of the non-specialist in mathematics.

Send for circular showing the articles published in the last six volumes. Sample copy and all information may be obtained from the

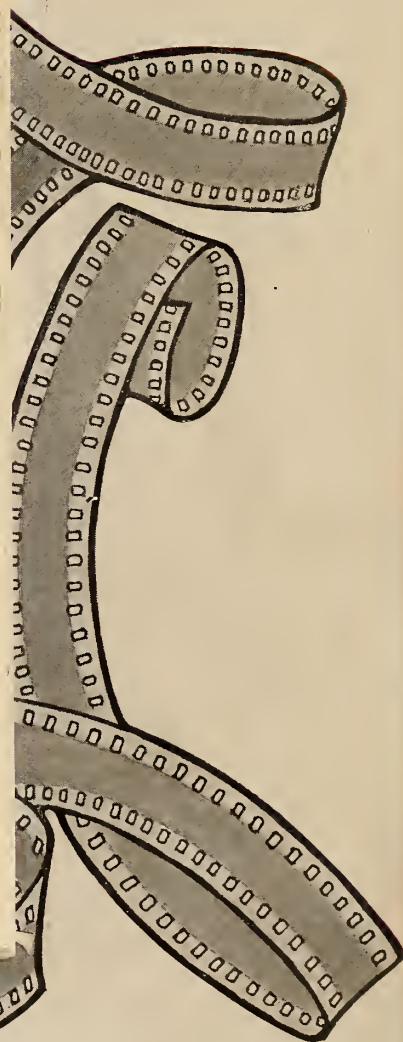
SECRETARY OF THE ASSOCIATION

27 King Street

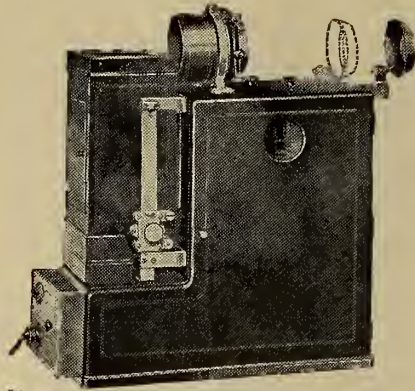
OBERLIN, OHIO

ATION

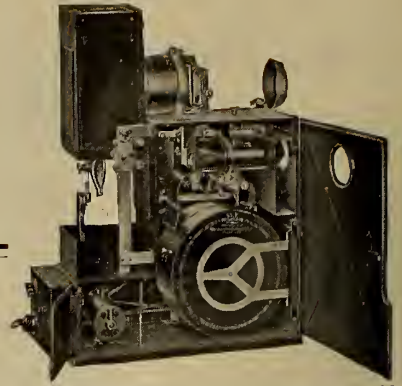
ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



This cut shows the lamphouse in position for projecting motion pictures. Merely raising the lamphouse converts the machine in an instant into a stereopticon.



This cut shows the lamphouse in position for projecting stereopticon slides. While slides are being projected, the operator may be changing reels. Inside pilot light serves his needs.

The "ACME" S. V. E.

A Combined Film-and-Slide Projector

A SEMI-PORTABLE Motion Picture Projector that is superior to any other similar machine ever offered, with Stereopticon Attachments of equally high quality—a combination that offers *the ideal projector* to Schools, Churches, Community Centers, Y. M. C. A.'s, Institutions, Women's Clubs, Lecturers, etc. So simple to operate that a boy can conduct the showing.

ONE Machine That Does the Work of TWO

APPROVED

By the Underwriters' Laboratories



HOME OF THE "ACME" S. V. E. PROJECTOR

The largest plant in the world devoted to the exclusive manufacture of portable and semi-portable projectors

THE "Acme" S. V. E. is the ONE machine with which you can give a combination film-and-slide program without delays for readjustment. The transformation is practically instantaneous—you have only to move the lamphouse up or down.

Slides can be shown at any point in the film, to introduce new matter or give added emphasis to some particular feature. Slides can be thrown on the screen during the wait between reels. Thus there is no let-down to the interest and attention of the audience—an advantage that appeals to speakers and chairmen of programs.

**Some Other Features That Make the "Acme" S. V. E.
The Projector Without a Peer
For Classroom and General Non-Theatrical Use:**

Safety automatic shutter
Center-dividing metal film
magazines
All-metal (aluminum) case

Instant framing and focusing
Unequaled illumination
Motor-driven independent re-
wind

The "Acme" Portable Booth

For schools and churches where a booth may be necessary. Mounted on rubber-tired casters. So designed and proportioned that it can be taken from room to room, through any doorway, without taking apart. Compact and substantial. Made of 20-gauge iron, black enameled.

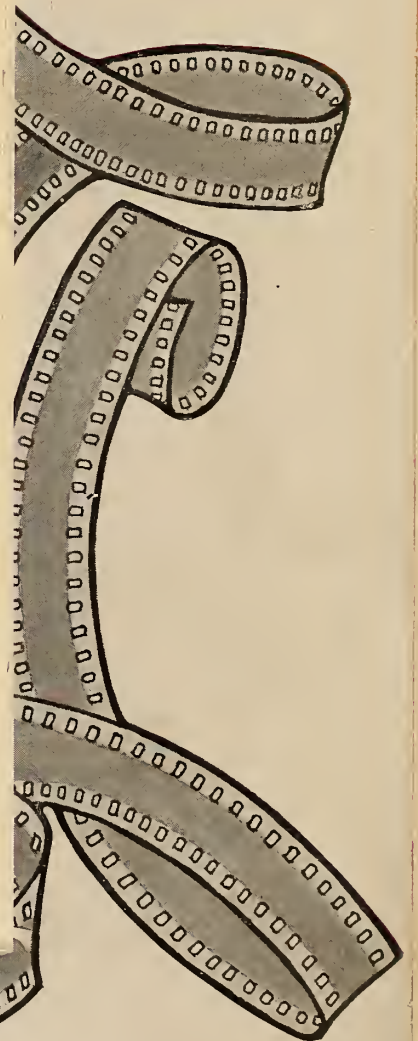
The "Acme" Auto Generator

Makes moving pictures possible where electricity is not available. Provides current for lighting home, grounds, church or school. Can be operated on any automobile—attaches to running board. No mechanic necessary. Weight, 50 lbs. Generates standard 110 volts; capacity, 1050 watts.

For prices and other information address

ACME MOTION PICTURE PROJECTOR CO.
806 West Washington Boulevard . CHICAGO, ILLINOIS

ATION
ts • 100 a Year



THIS ISSUE: Playing the Health Game

Every Teacher Is a Salesman

THE teacher "sells" education to more or less reluctant prospective "customers." He represents one of the most important "lines" in the world. Business thinkers tell us that the principles of Salesmanship underlie *all* practical human activities; that a knowledge of the methods of successful selling enables the minister to be a more efficient and successful minister, the lawyer a better lawyer, and so on. If this is true—and it is—it will *pay*, as well as entertain and interest and inspire you, to read "The Main Entrance to Successful Selling," as it has been called: **HOW TO SELL—AND WHAT.** In order to make it as easy as possible for you to get acquainted with this Popular Periodical of Selling Pep and Punch, we are making educators this

Special Introductory Offer

HOW TO SELL —and What—

3 Months for Only 25 Cents

We have another reason. We want you to know this unique Experience Exchange and Clearing House of Sales Information, because we want you to be in a position to tell ambitious young people about it when they come to you for vocational advice. *You* need to know about selling, you see, to guide *them* into this Profession of Golden Opportunity. Three months for 25 cents (stamps or coin) if you mention **VISUAL EDUCATION** and address

KABLE-SPALDING CO., Dept. 55—22 W. Monroe St., Chicago

Is This YOUR Copy of VISUAL EDUCATION That You Are Reading?

If not, don't you think it would be a real advantage to have your own personal copy coming to you regularly every month?

Then you would be sure of getting all the important information on visual training which every issue contains for you.

You would be sure of getting this information promptly.

You would have plenty of time to read it—in your own leisure and at your convenience.

You could keep your copies for future reference.

The Cost is Nominal

One Year, \$1.00 — Two Years, \$1.50 — Three Years, \$2.00

Address **SUBSCRIPTION DEPT.**

VISUAL EDUCATION, 806 W. Washington Blvd., CHICAGO

MAY 18 '22
©C1B528025

Visual Education

A MAGAZINE DEVOTED
TO THE CAUSE OF
AMERICAN EDUCATION

Rollin D. Salisbury, President - Harley L. Clarke, Vice-President
Forest R. Moulton, Secretary - L. M. Belfield, Managing Editor



Subscription \$1.00 a year.
Single copies 15 cents.
Back numbers 25 cents.
Published every month
except July and August.

VOLUME 3

APRIL 1922

NUMBER 4

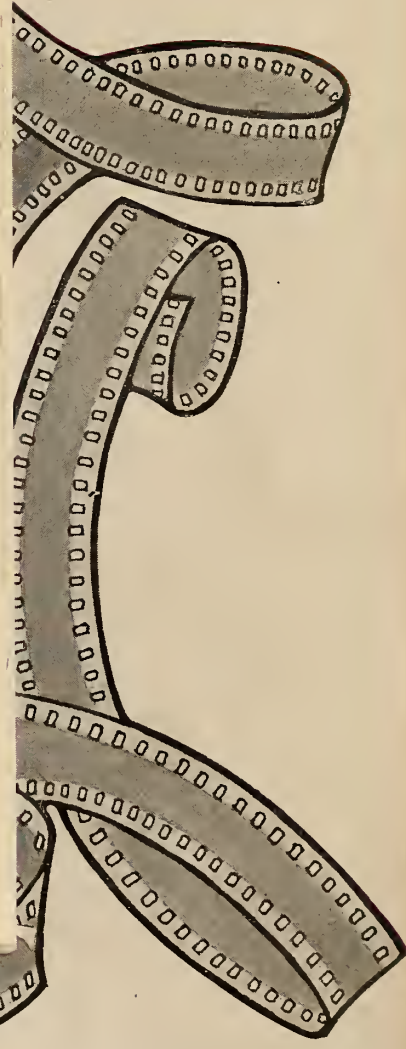
IN THIS NUMBER

"Clean Up or Be Cleaned Up"—Says the Public to the Film.....	190
<i>L. N. Hines</i>	
Announcing Dr. William C. Bagley's Editorial Co-operation.....	192
Correlated Visual Instruction (Part IV).....	193
<i>Dudley Grant Hays</i>	
The Future of the Serial.....	199
<i>A. P. Hollis</i>	
Sequoia and General Grant National Parks.....	201
<i>A. E. Demaray</i>	
The Motion Picture—Yesterday and Today (Part II).....	204
<i>Mary McKenzie French</i>	
How the Graph Aids Lame or Lazy Mathematics.....	210
New Perspectives in Nurse's Vocation.....	211
Visual Activities the World Over.....	213
The Films in Review.....	218
Editorial Miscellany	226
"Here Are Books".....	232
The Picture Hour (Rosa Bonheur's "Oxen Ploughing").....	235
The Film Field.....	237

Published by the Society for Visual Education, Inc.
806 W. Washington Blvd., Chicago 220 W. 42nd Street, New York

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

Visual Education

Copyright April, 1922, by the Society for Visual Education, Inc.

"Clean Up or Be Cleaned Up"— Says the Public to the Film

L. N. HINES

President, Indiana State Normal Schools, Terre Haute and Muncie

IN July, 1921, we were on our way to the summer meeting of the National Education Association at Des Moines, Iowa. On the train we fell into conversation with a man who was connected with the production of commercial movies. He was urging the good that the movies do and was inclined to excuse their obvious faults. When it came our turn to speak, we made this statement to him—a statement that we believed then and that we believe now:

"The movies will either be cleaned up by the people who are producing them, or they will be cleaned up by people not producing them."

There is every indication that the vulgar movie will soon be compelled to go. Although the people are sometimes very slow in moving, when a great cause presents itself they ultimately *do* move; and certainly few causes are more vital than that of fighting the contamination of the public mind which is being worked by all sorts and conditions of films, produced with the sole idea of getting money into the box-office.

Vulgarity vs. Stupidity

It has been stated that in one community vulgarity has been eliminated from the film, but that stupidity has taken its place.

No more vivid commentary could be made upon the scarcity of real reasons for the existence of the ordinary commercial moving picture than the above-quoted remark of a movie censor. Interpreted, this is a frank admission that movies must be either vulgar or stupid. It is assumed, of course, that stupidity will not bring as much money into the box-office as vulgarity, and so in all too many cases the vulgar type of film is produced so that people will continue to patronize the theaters.

The recognition of a forced choice between the alternatives of vulgarity and stupidity is, further, a commentary on the fact that those who produce movie plots have largely run out of ideas and can only fall back upon the vulgar as a drawing feature.

Too Few Clean Films to Go Round

The truth of the matter is that the average town or city has too many

movie houses. There are not enough attractive, clean pictures produced to supply all these houses with interesting, original, wholesome programs. If we had only a few producing companies, who could use the talents of the brightest and best of our writers, and only a comparatively small number of movie houses in each city to exhibit these pictures, better results might be obtained.

**The Movie
Masquerade**

The writer wishes to enter a strong protest against the deliberate debasing of many high-grade and classic stories in the process of preparing them for the screen.

Frequently, seeing advertisements of the picturing of some famous story, we go to enjoy an old friend in film form. What

do we find? Seldom or never a faithful portrayal of the original novel or play, but a story that has been "touched up" here and there with characters and incidents that are judged to have a strong popular appeal, with elements of vulgarity drawn into the plot that had no place in the original story. This matter of attracting audiences with the promise of classics

that are present "in name only" is tantamount to obtaining money under false pretenses, and is something to which we should present a united resistance.

The Moral Responsibility

It has been frequently and fervently declared in recent months that, despite the numerous rumors and discoveries of high scandals in Hollywood and other "movie towns," the vast majority of the people of the screen are decent and respectable in their home life.

We do not deny this for a moment; in fact, we trust that this statement is entirely true. But we would venture the assertion that the greatest damage is done not by motion picture actors who are

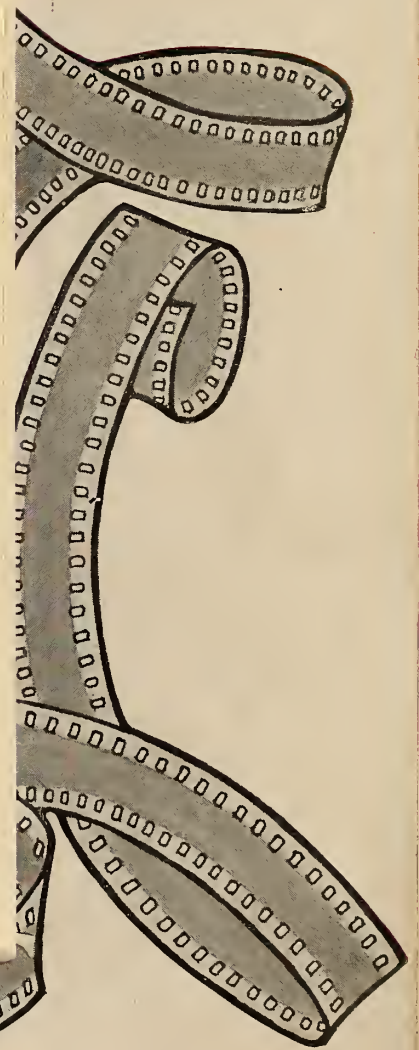
reckless in their private lives, but by those who, reckless or the reverse, consent to a part in placing on the screen vulgarities of the most objectionable sort. A man may live a perfectly moral life at home, but if he takes part in the development of stories that embody unclean ideas he is thereby guilty of an injury which is vastly greater than if he confined his vicious



Linnaeus N. Hines

ATION

ts • 100 a Year



influence simply to his personal acts.

A man who, in the part of a bank robber, shows just how a bank may be broken into, is helping to pervert the minds of tens of thousands of boys over the country. This "robber" might himself be a bank robber on the side and yet never in that way work as much harm as by portraying the robbing of banks on the screen.

The same argument, of course, will hold in regard to any of the other vicious or vulgar films that are produced for use in the moving picture theaters of the land. It is what the people see the actors do that makes for good or evil, rather than what these

actors do or are in their private lives.

The movies must clean up—or get cleaned up.

Let the Film Fulfill Its Mission

The photoplay, the most powerful instrument of all the ages for the inculcation of knowledge, has today—like Samson of old—fallen into the hands of unscrupulous Philistines, who for the most part are using it simply and solely to make sport for the citizens of the world. It must not continue principally to make sport for men. It must accomplish the work for which it was given to the world—to entertain and entertain cleanly, but also to instruct and inspire.

Announcement

VISUAL EDUCATION takes pride in announcing that the co-operation of Dr. William Chandler Bagley of Columbia University has been secured as Chief Editorial Writer of this magazine.

Since 1917 Dr. Bagley has occupied the post of Professor of Education in Teachers College, Columbia University, and is a recognized authority in the general field of education and educational method. During the war he edited the National School Service for the Committee on Public Information. He is the author of such outstanding works on education as "The Educative Process," "Classroom Management," "Craftsmanship in Teaching," "Educational Values" and "School Discipline." He is joint author, with W. S. Learned, of "The Preparation of Teachers," and with C. A. Beard of "The History of the American People," "A First Book in American History" and "Our Old-World Backgrounds."

Dr. Bagley's first editorials on subjects of timely interest to the educators and fathers and mothers of America will appear in the May issue.

Correlated Visual Instruction¹

DUDLEY GRANT HAYS

Director of Visual Instruction, Chicago Public Schools

PART IV

CUMULATIVE impressions are considered very essential in the alert business world. We are not forgetful of the many manifestations of this principle during the numerous "drives" used so successfully during the past few years. That the theory underlying this thought is new, no one claims. We have, from earliest childhood, been assured that highly resisting things will yield to the constant attack of such slight things as drops of water, and that frequent cultivation of growing crops brings a suitable reward.

But have we not too generally overlooked this fundamental notion in the realm of instruction? Have we not been over-persuaded by advocates of the theory that one vivid impression is sufficient to leave behind a lifelong memory? In some instances we have been inclined to grant the point—especially if the impression was as intensive as the sting of a bee. But in the classroom routine few teachers can present subject matter all along the line as impressive and attention-fixing as bee stings.

Hence, cumulative impressions, all having a direct bearing upon the lesson objective, seem essential to secure the abiding result desired.

The Problem of Correlation

It is one thing to produce a variety of impressions, and it may be another

thing to produce a variety of impressions all correlated to the lesson objective.

The writer offers here a few types of classroom study with specific visual materials to secure cumulative, correlated thought which may result in a broadened, enriched notion of the lesson content. No attempt is made to be exhaustive, nor do we assume that the selections are the best under all circumstances. We offer them as types, realizing that their number is almost limitless. The place, the season of the year, available materials, the prescribed course of study, and the grade of the pupils, as well as some other possible factors, must all be considered in working out a program of action in instruction.

The Monarch Butterfly in Visualized Teaching

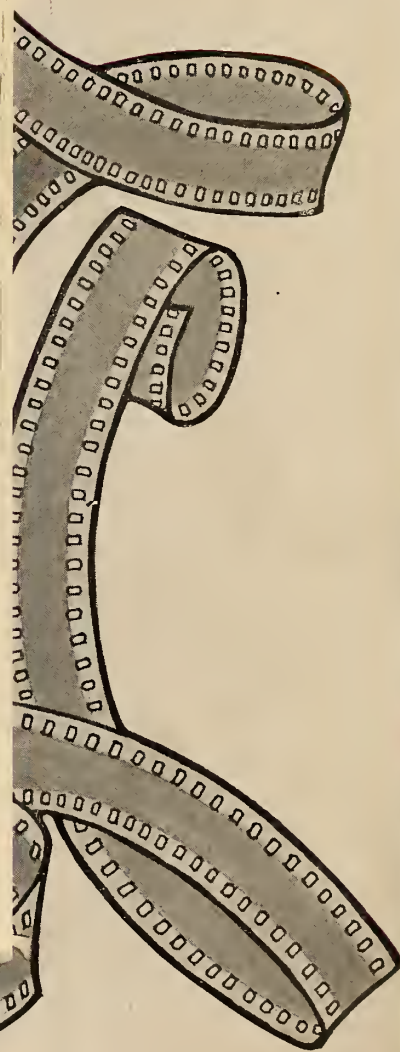
Were we in a Chicago public school and the autumn season with us, we might be turning our attention to the insect world, which holds so many fascinating mysteries to challenge our ability for solution. The life history and the relationship of the familiar "milkweed butterfly" afford an excellent type for study.

A beginning in classroom study may be made by showing good colored lantern slide views of the Monarch butterfly in as many stages of development as possible. While the enlarged pic-

1. This is the fourth of a series of articles on "Visual Methods in the Chicago Schools" which began in the December 1921 issue of VISUAL EDUCATION.

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

tures are on the screen, distinguishing features should be pointed out in order to prepare all members of the class to identify this insect when seen out-of-doors. With proper direction, there will soon be brought into the schoolroom specimens of the almost full-grown larva, which can be kept in a glass fruit jar or a small box provided with milkweed leaves and covered with mosquito netting, either container permit-

ting pupils to observe what takes place inside the prisoner's home.

The N. W. Harris Public School Extension of the Field Museum has developed a very fine cabinet showing this insect in all stages of its life cycle. This is Cabinet Z-82 and is for free use in all public schools of Chicago, being one of the Museum's special circulating exhibits. The illustration gives an idea of the content of this

Field Museum's attractive and informing "traveling exhibit" on the Monarch butterfly. Every stage in the life-cycle that can be shown by specimens is here illustrated. The two pictures below, reproduced from the film, "The Monarch Butterfly," suggest the effectual ways in which the motion picture fills in the missing links in the story.



The labels appearing below the lower row of specimens read as follows:

Eggs
Larva
Chrysalis
Adult Male
Adult Female

Note the "scent pockets" (indicated by the tiny dark spots on the lower pair of wings) with which the male Monarch attracts the mother butterfly.



The film shows us the caterpillar, waxed fat upon its rich diet of milkweed leaves, spin a silken button and, suspending itself by its tail, undergo the mysterious transformation into a chrysalis. Every detail of this wonderful metamorphosis is pictured.



After 12 to 14 days, the chrysalis case bursts and a curious creature emerges, very moist and crumpled. The screen permits us to see the outline of the developing butterfly within this pendant jeweled chrysalis, and to watch the complete process of emergence.



© Keystone View Co.

A slide that pictures the growing of cotton on a Mississippi plantation. Nearly two-thirds of the world's cotton is grown in our own South.

is to hang, undergoing the mysterious change into a chrysalis, taking butterfly form within the chrysalis case, and finally emerging as a perfect butterfly, gradually unfolding its wings, and at last "taking to the air."

Other insects, such as bees, flies and mosquitoes, can be similarly studied by means of slides, cabinets, living specimens and motion pictures. The result of all these closely correlated views will naturally be an intense, vivid impression which will make the growing child

delightful case. Butterfly and insect alert to find out the life secrets of books will give further assistance in other insects which he may see about ferreting out the relationship of this widely known insect.

To give the class a concentrated, logical bird's-eye summary of the subject, the entire life history of this insect can be followed via film. A one-reel motion picture, "The Monarch Butterfly," has been prepared for classroom use by the Society for Visual Education. Such a film enables students to watch in orderly sequence every detail of the insect feeding in its larval stage, spinning the silk pad from which the chrysalis

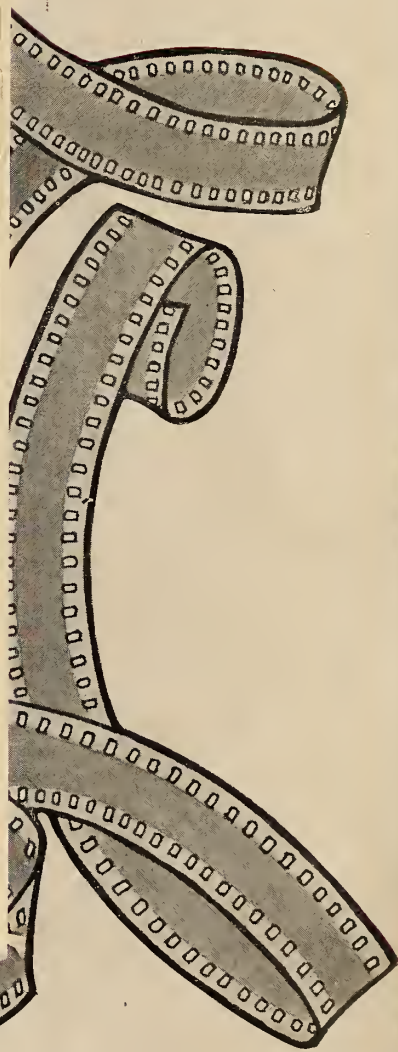


© Keystone View Co.

Another slide in the series on cotton growing and marketing. Here they are weighing baskets of freshly picked cotton in the field. The pickers are paid about half a cent a pound.

ATION

ts • 100 a Year





© Keystone View Co.

A stereopticon study of sheep on an Australian range.

him in field, garden and woodland, near pond and stream, and in the city parks.

Visualizing the Study of Cotton

Were we studying the problem of our clothing, we might select cotton, wool or leather as one type. If it be cotton, let us begin by securing the B-15 cabinet from the Field Museum, and by having members of the class bring in samples of cotton cloth. Let us project on the screen a set of slides showing cotton fields in various stages of growth. Some good stereographs on this topic are available and should be used in direct connection with the textbook study.

The geographic areas that are the world's great cotton-producing regions should be pointed out on the map, and the geographical conditions essential to the growth of this plant should be emphasized through questions and discussions. A consideration of the original purpose of the cotton fibre and its development under man's culture may be desirable in some classes. The commercial ideas involved in the cotton industry are rich in thought work and

suggest many human relationships in which we are directly involved.

There is an interesting reel called "The Story of Cotton," produced and distributed by the General Electric Company, which offers splendid material for a preview or review in connection with the study of cotton.

The Pictured Story of Wool

For the study of woollen clothing, plenty of materials are also available or readily obtained for the purpose of making the desired cumulative impressions. Samples of various kinds of wool in the different stages of manufacture are furnished in neat cabinets. A good collection of samples of woollen cloth should be on hand for sense-of-touch study, as well as for pupils' inspection of the nature of the weave.

Stereographs are very helpful in vitalizing the details of the lessons, and good ones are to be had at very little cost from the Keystone View Company. Lantern slides showing flocks, pasture regions, woollen mills, and many other features incident to the wool industry are plentiful.

By way of film helps, "The Story of Wool," offered for free use by the Gen-



© McIntosh.

In this slide from a series on wool production we are introduced to a thoroughbred Oxford ram.

eral Electric Company, is recommended. Another excellent reel is Ford Educational Weekly No. 172, called "Little Bo-Peep." If a trip could be made to the stock yards, plenty of live sheep could be seen, but with our modern classroom aids that is not necessary. Slides, stereographs, specimen cabinets and motion pictures furnish an abundance of cumulative impressions of the woolen industry to "connect up" this study with many others related to it, and serve to lead boys and girls far afield, in fascinating imaginary journeys, to locations where raw materials are produced and elaborated for the city dweller.

Bird Study with Visual Materials

The study of birds enters largely into the stories enjoyed by children. We all love birds. Books are replete with readings concerning them. The fear is that not enough objects affording tangible *sense impressions* will be placed in the schoolroom to lay a good foundation for interpreting what is told in books.

Here again the teacher should employ, wherever possible, specimen cabinets showing an entire bird family, with parents, young ones and even the nest in its natural setting, all carefully



© Keystone View Co.

The magic of the stereoscope makes clear and sharp this scene in a Lawrence, Mass., woolen mill, showing the sorting and grading of the fleece after it has been cleaned and washed.

reproduced for detailed observation. Stereographs, charts in natural colors, slides carefully made and accurately colored, are of inestimable help. Excellent films are now appearing which take us into bird retreats where otherwise we could never enter and enable us to make an intensive, intimate study of bird life. In fact, there is so much objective material at hand that correct visualizations of the meanings of statements the pupil finds in prose and poetry on the subject of our little feathered friends are pretty sure to result from its wise use.

Sense Experience Must Come First

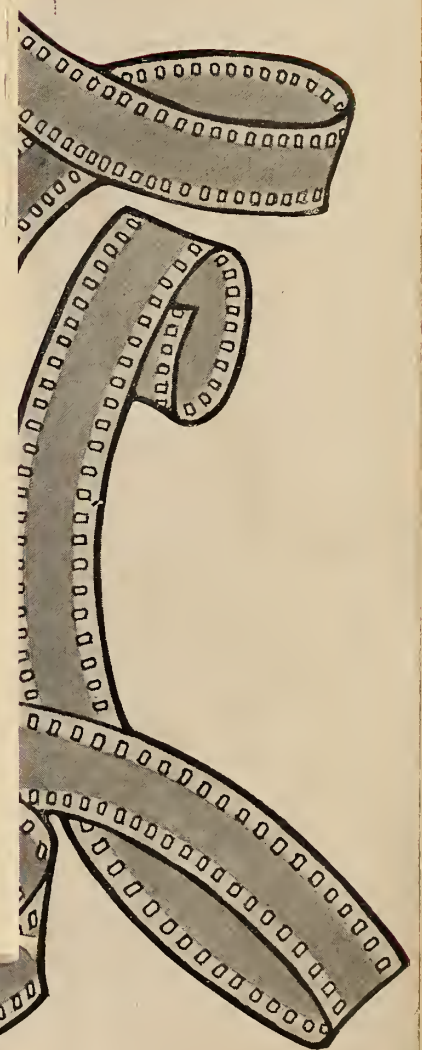
If only we could realize more fully that words are only *symbols* to call up images, and that unless those images have already been formed from sense experiences they cannot be called before the mind, how earnest we should be in starting our boys and girls with right notions! Giving real sense experience is the fundamental necessity, to be followed by the representation



A closeup from the General Electric Company's highly informational motion picture, "A Woolen Yarn."

ATION

ts • 100 a Year



through picture, sketch or model. Only after such correlated presentation will the word—the conventionalized symbol—mean more to the child than a mere aggregation of letters.

Real objects, and not their symbols, should be the foundation for elementary study, whether in primary or secondary educational procedure.

Objects, models, maps, charts, pictures, stereographs, lantern slides and motion pictures are *all* essential to secure the best results. No real educator claims that the study of the printed page should be omitted; but it is insisted that by a wise use of the above-named aids so much light may be turned upon that page, that what was formerly a drudgery becomes a task of delight.

It is not criminal to make the process of acquiring an education one of pleasure. It is devilish to make it one of punishment and torture, even though our barbaric ancestors practiced that art.

How to Correlate Visual Materials

Experience and pedagogic science, backed by definite experimentation, urge the adoption of some such program and sequence as are embodied in the following suggestions for correlating visual materials in classroom teaching:

1. Topic—Something essential and worthy of study.

2. Objects—Real and alive if possible; if not, then neatly prepared and mounted specimens.

3. Models—Where nothing better than models is available.

4. Charts or Maps—To show locations and relationships.

5. Pictures—In as large a variety and as good a quality as means will permit.

6. Stereographs—To be related to the lesson topic and used by individual pupils in connection with the textbook during the study period.

7. Slides—For the entire class to study, and intended to centralize the thought of the lesson.

8. Motion Pictures—To be used especially where action or motion in processes is an essential factor in the lesson.

9. Review—To mass the experiences of pupils and to round out the thought of the lesson.

10. Expression—Resulting from above cumulative impressions and to include these three forms:

(a) Oral—To develop versatility and clearness in expression.

(b) Written—To cultivate correct diction and neatness in writing.

(c) Pictorial—To furnish opportunity for developing means of expression through brush, pencil or pen.

KEEP the heart in education as well as the head.

—FRANK E. SPAULDING,

Department of Education, Yale University.

The Future of the Serial

A. P. HOLLIS

Visual Instruction Service, North Dakota Agricultural College

"TIME was when folks sat on the edge of the seat, gripping the arms, and clenching their teeth, as Belinda, the Beautiful Boiler-maker, was lowered slowly over a vat of melted lead, or burning oil, or seething acid, or something; and when the picture was sharply cut off with the announcement that 'Out of a Sea of Oil,' Belinda's next hair-raiser, would be shown the following week, there was a sudden relaxation of tension. Then folks would talk all week about Belinda and her embarrassing position, wondering just how Hair-breadth Harry was going to rescue the beauteous Belinda from the clutches of the dastardly Relentless Rudolph. Now it is a different story. As the heroine is suspended over a yawning chasm, and the hero is being scorched to a delightful crisp by the Q-rays of Professor Nozalot, you hear folks in the audience chuckle."

So philosophizes "L. C. M." in an interesting article in the FARGO FORUM. He goes on to recall some of the serial "thrillers" of the past. There was "The Adventures of Kathlyn," featuring Kathlyn Williams and making a fortune for Selig. Edison produced "The Adventures of Mary" and "Dolly of the Dailies," with Mary Fuller. "The Diamond from the Sky," with Mary Pickford's sister, Lottie, ran through thirty episodes and proved a gold-mine for the producer.

"The Million-Dollar Mystery" was another phenomenal success. But

Pearl White in "The Perils of Pauline" outdid them all. She raced through the Exploits of Elaine, The Clutching Hand, The House of Hate, and The Great Secret, without losing a hair. Ruth Roland gave her a close chase in the serial game, and Helen Holmes made the railroad run wild.

The serials are still with us, but they don't receive the big share of patronage they used to enjoy. The Shockers have lost the Shock. "L. C. M." thinks one reason is the fact that there is not plot enough in any story to run through twenty episodes. He says a full-length novel has only half enough action for a six-reel feature, and that a seven-volume novel would not consume more than ten or twelve reels.

Large Audiences Without Thrillers

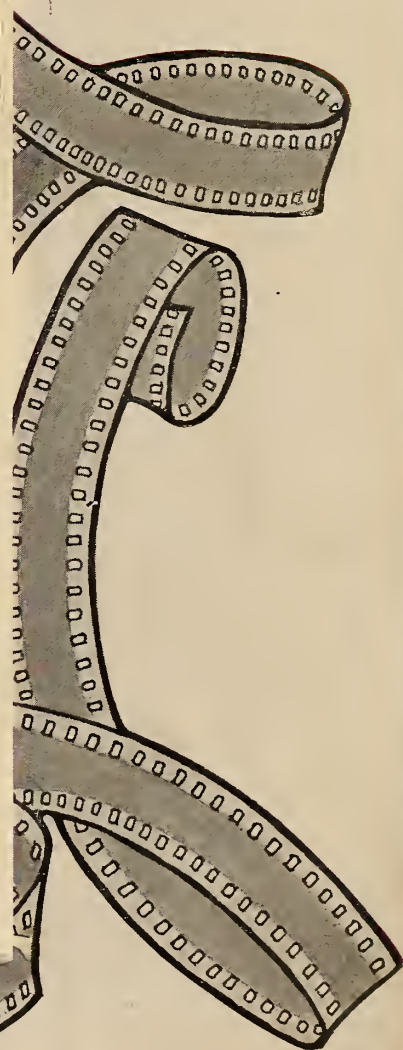
If the serial is to remain a "penny-dreadful" and appeal only to the melodrama-loving public, "L. C. M." is probably right. When the novelty passes, so will Pippa.

But the question I wish to raise is, are we sure that the serial is a vehicle for thrillers only? There is another large audience not interested in thrills, nor held only by novelty.

Consider Sinclair Lewis' "Main Street," today's biggest seller. It is quite bare of thrills and its only novelty is the commonplace. Consider H. G. Wells. It is true he wrote a few thrillers and that all his works possess novelty; but his novelty is one of thought, not action. Yet he has an im-

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

mense international audience. Barrie is hardly a writer of thrillers, and yet the theaters fill up when "Sentimental Tommy" is on.

There is a considerable group of pre-eminently worth-while authors who command a perpetual audience as the generations come and go. This audience is a thoughtful audience, looking for true ideas, whether they involve hectic action or placid contemplation. They want to see ideas worked out by somebody in whom they have confidence. They make a concession when they go to see "Les Miserables" worked out in one evening. They know the book can't do that, and they know that time is required for digestion and absorption as the chapters move along. I believe they would be willing to go two evenings, or even six, to see great literature given adequate expression on the screen, without hurry and without cuts of whole chapters of atmosphere and description.

In dramatizing a great work, the telescoping process now made necessary by the two-hour performance limit involves a serious loss of many of the subtle effects produced by the author's descriptions, impossible to represent in stage action.

We do not set two-hour limits to reading a book, else all novels would be the short-story length. The blood-and-thunder serial has proved that it is not necessary to limit a dramatization to a two-hour performance. There is nothing magic about two hours, that novels of all sizes and types can be jammed into the two-hour box and made to fit. Genius should not be hampered by such an artificial limitation as "the customary two hours."

Chinese Used to "Serial" Plays

Even the Chinese have escaped that. They go to a play as they would go to college, prepared to stay some time, with intervals for meals. So also with the Greeks and the audiences of the Middle Ages, where great spectacles frequently took all day and in some cases several days.

The serial has improved on the Chinese arrangement, as it does not necessitate giving up work and all other engagements to concentrate for a day or two on a play. Coming once a week for an hour or two, there is time for working out the details of a literary masterpiece, and yet nobody has to resign from work to do it. An exact analogy is furnished by the serial story of the magazines, with installments coming once a week or even once a month. That is the proper way to read a great work—with intervals for what Herbart calls Reflection and Absorption. That is the way most great novels first reached the public in the days of Dickens and of Scott.

Serials Impossible to Stage

There are obvious reasons why the American stage drama has been unable to give serials: the immense amount of memory work and rehearsals for the actors, the impossibility of holding a troupe together "en tour," where engagements for one performance of a single play would involve a week.

But the silent drama has arrived for such a time as this. After its initial production, it requires no troupe, no hotels and railroad trains, no scenery. Just a little ribbon of celluloid coming in a metal box through the mails every week—a beam of condensed sunlight—

(Continued on page 241)



A FALLEN SEQUOIA AND A MODERN TRAIN

A side-by-side comparison that gives one some conception of the gigantic size of these "big trees" of California. The largest of them all, "General Sherman," has a trunk 36 feet in diameter—so thick that a chain of twenty men, with wide-stretched arms, can just manage to encircle it. Many of the sequoias range from 300 to 400 feet in height. They were named in honor of a half-caste Cherokee, Sequoyah, who invented an alphabet for his tribe.

Sequoia and General Grant National Parks

The "Big Tree" Parks of America

A. E. DEMARAY

Editor, National Park Service, Department of the Interior

NESTLING close to the snow-capped Sierra Range in California lie the Sequoia and General Grant National Parks. The former has an area of 161,597 acres, while the latter has an area of only 2,536 acres.

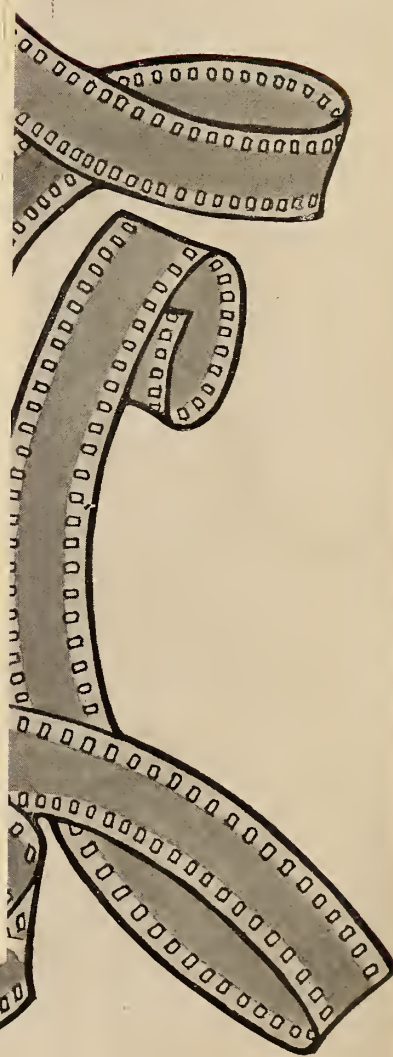
In the Sequoia Park there are over a million sequoia trees, of which 12,000 exceed ten feet in diameter. There are,

however, among these 12,000 some phenomenal monster trees of great age, such as the General Sherman tree with its diameter of 36.5 feet and height of 279.9 feet.

The General Grant National Park was created primarily to preserve the wonderful General Grant tree, which has a diameter of 35 feet and a height of 264 feet and which is second only

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

to the General Sherman in size and age.

How Old is "General Sherman"?

Scientists have figured that the General Sherman tree, for instance, has reached its four-thousandth birthday, having been a thriving young seedling several thousand years before Christ was born. Such a tree history is almost impossible to comprehend. One stands appalled before these hoary forest giants, which are doubtless the oldest living things on this earth. Standing amid them one is overcome with a sense of being in some Brobdingnagian

forest. One feels, somehow, that from out the dim woodland shadows cast by these giants, monster prehistoric animals must presently appear in order to give proper scale to the surroundings.

These trees belong to the species *Sequoia Washingtoniana*, being one of two species of sequoias on the Pacific Coast. The other species, the *Sequoia Sempervirens*, is found farther to the north.

To Save the Redwoods

Even now a large body of patriotic, public-spirited men and women are



"THE BLACK CAUSEWAY"

Some prehistoric fire burned its way through the mighty trunk of this giant tree, and today the Circle Meadow Trail leads the Park visitor through the ancient gap. So great is the vitality of these forest kings that, high above even such mutilations of age and accident, the tree in many cases still puts forth new branches and raises its imposing though battered head to a new century of storms.



THE "CONGRESS GROUP"

This magnificent group of medium-sized sequoias stands near the Giant Forest. "The big tree," says John Muir, "is Nature's masterpiece. It has a strange air of other days about it, a thoroughbred look inherited from the long-ago. As far as man is concerned, it is the same yesterday, today and forever—emblem of permanence."

busily engaged in gathering funds to save some of these other wonderful redwoods for the enjoyment of future generations. If this is not done, a few years more will see them all cut up into lumber, and their ancient glory will be only a memory.

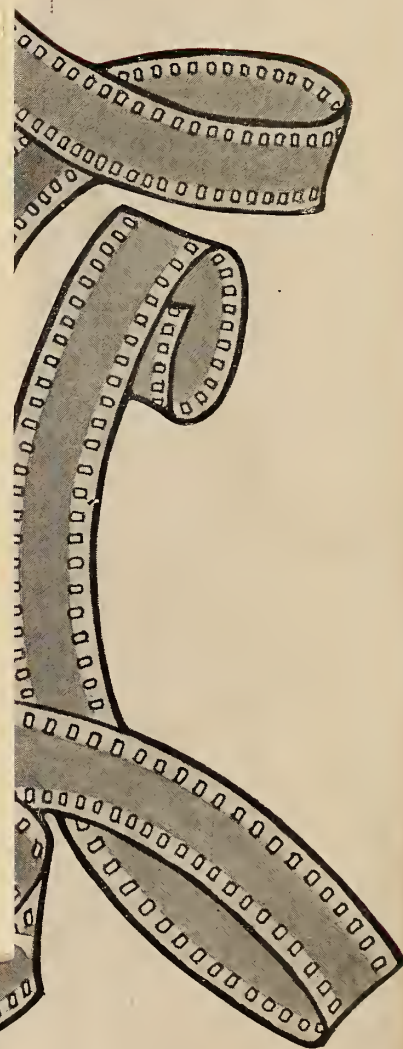
The pictures accompanying this article will give some idea of the singular majesty and impressiveness of these

trees. Their real beauty, however, can be appreciated only by a jaunt through the forest, where one can absorb the real spirit of life as it emanates from these trees that have been growing there for thousands and thousands of years. It is an experience that turns even an ordinary man into a philosopher for the hour—that brings him a glimmer of what "eternity" means.

WE can live without pictures, but no so well.
—RUSKIN.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

The Motion Picture—Yesterday and Today¹

MARY MCKENZIE FRENCH

Society for Visual Education, Chicago

PART II

NO matter how far the early inventors carried the art of the motion picture, it could not be other than a highly imperfect art until a light, flexible medium for the pictures had been found to take the place of the bulky and fragile glass plates. The utter impossibility of any achievement until this substitute was found can be no more clearly illustrated than by the following illuminating statement of Rathbun in "Motion Picture Making and Exhibiting":

"In the modern film," says this writer, "sixteen thousand photographs on one thousand feet of film make a roll only ten inches in diameter and one and three-eighths inches thick. If, however, there were accommodated the same number of photographs on a glass dry plate, an area of *eighty-two square feet* would be required, which when put into practical use in a single plate would make a strip one foot wide and eighty-two feet long."

The Quest for Celluloid Film

With the steadily increasing interest manifested by scientists in the camera and the projection machine, and with the growing realization of the unlimited possibilities resulting from making the picture move, came naturally increased experimentation to find

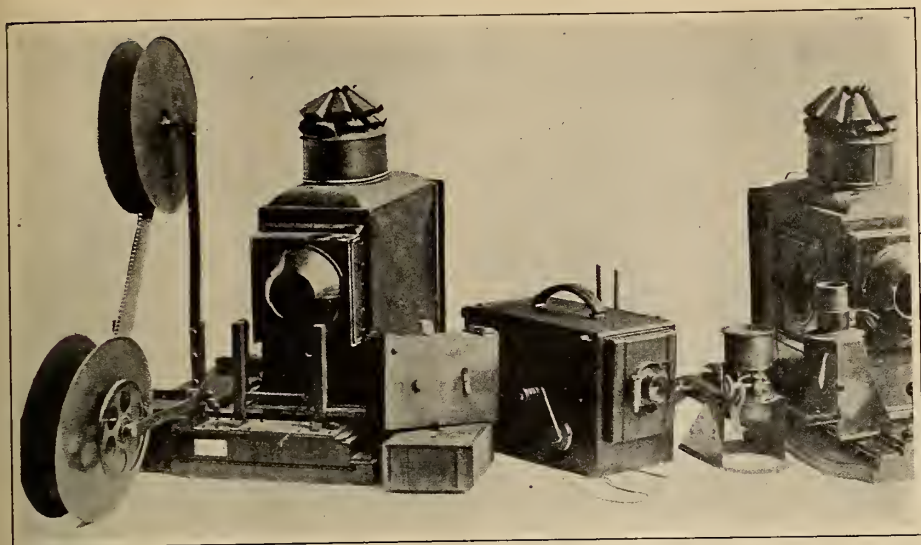
this suitable medium. Although as early as 1854 there is recorded an attempt to use celluloid in the solving of the problem, inventors directed their first efforts along other lines, and not until after long, tedious and heart-breaking efforts was evolved the celluloid film so familiar to us today.

There were attempts made to cover a transparent paper with a gelatin emulsion. The results however, were unsatisfactory, for the grain of the paper broke up the picture and the final positive was anything but clear. Another method seriously attempted was stripping the picture from the glass plate to attach it with insoluble gelatin to a stiff sheet. As can readily be seen, this process was most laborious; furthermore, it was one of such extreme delicacy as to make it impossible to guarantee its successful completion, so that it was doomed to failure from a commercial standpoint. The gelatin, moreover, was lacking in stability and had a tendency to conduct itself in a most startling manner when plunged into the developing fluid.

Eastman to the Rescue

In Rochester, New York, a manufacturer of cameras and photo-materials had long been quietly working toward a solution of the problem. As early as 1885, George Eastman had produced a system of roller photog-

¹The first article of this series appeared in the March issue.



Courtesy of the Scientific American Pub. Co. From Lescarbourea's "Behind the Motion Picture Screen."

Types of the crude apparatus with which the pioneers struggled

raphy—a revolutionary improvement of the camera, by which the film is passed behind the lens in sections, the second roller winding up what the first roller has unwound until the entire length of film has been exposed. No matter how perfect and ingenious the mechanism, however, it could not well function until it was utilized with effective film. It was not until the year 1889 that Eastman's unceasing efforts met with success and the first long strip of celluloid film suitable for cinematographic work appeared.

Eastman was not the only man who at that time had realized the possibility of using celluloid. In 1887 the Reverend Hannibal Goodwin, a pastor of Newark, New Jersey, filed an application for a patent on a celluloid film. His claims in the matter re-

sulted in complications that led to a lawsuit against the Eastman Kodak Company for infringement of patent. The litigation dragged itself out through many long years, and within but a comparatively recent time has a settlement been effected with Goodwin's widow. Among other matters, this settlement covers a license permitting the Eastman Kodak Company to continue

to make films under the Goodwin patent and process. Grau, in "The Theater of Science," acclaims Goodwin as "the genius who solved the greatest problem in the evolution of the moving picture."

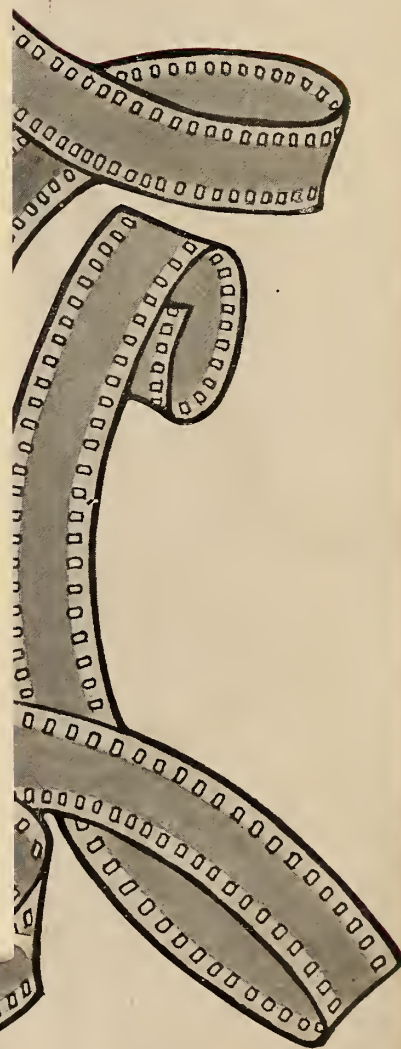
It is interesting to note in passing, that a Mr. Blair, working independently in England, had also evolved roller photography, using a crude celluloid film of his own manufacture. The Blair Company



An example of modern film, showing the exact size of the frame and the number of perforations

ATION

ts • 100 a Year



was finally merged with the Eastman Company of America.

The Twins—Celluloid Film and Modern Photography

Hand in hand with the celluloid film came modern photography. Daguerre, the famous photographer, working back in the thirties, had required six hours for an exposure. In 1840, however, Draper of New York University was able to make daguerreotype portraits in a period of time varying from forty to ninety seconds, and in the same year was also successful in obtaining what is believed to be the first sunlight picture. This year of 1840 seems to have been a propitious one for the camera, for it was then that Henry Fox worked out an invention perfecting the photographic negative from which innumerable prints may be made.

By the year 1872, the swift wings of progress had carried the photographic art to the point where it was possible to take snapshot pictures; and in 1889, W. Greene and M. Evans completed a camera capable of taking three hundred exposures at the rate of ten a second. Today, so highly has the film been perfected, the actinic speed of a sensitized surface is one-thousandth part of a second—an inconceivably short space of time.

Enter—The Wizard of Menlo Park

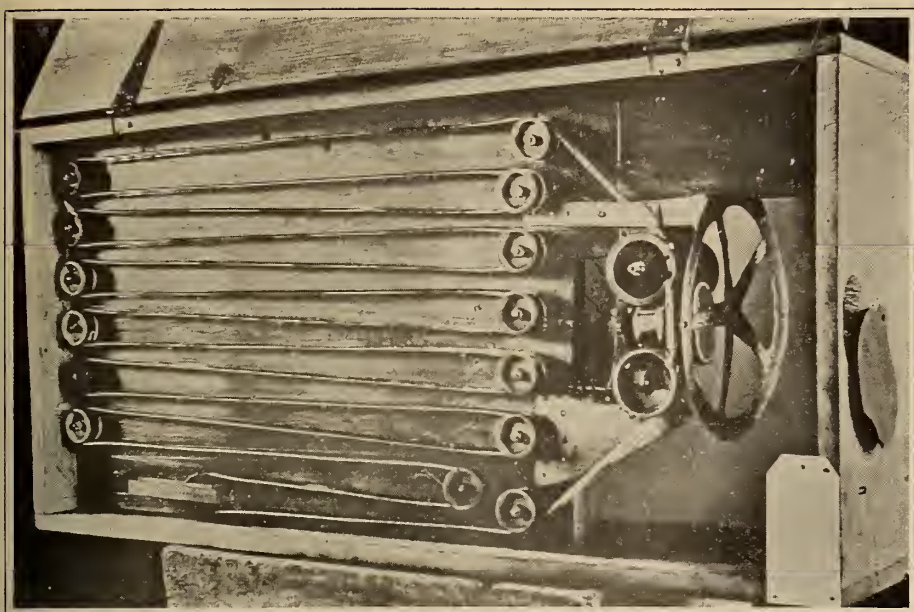
With the celluloid film at last available, Edison entered definitely into the race. He had at various times struggled with the intricacies of projection and had experimented with films of flexible collodion; but possibly because he failed to sense fully the deep significance of his enterprises, he had elected instead to concentrate his energies

upon the phonograph. Eastman's timely activities, which provided him at last with the necessary medium, acted as a spur.

The immediate result of subsequent days and nights of toil in a secluded room in the Edison laboratories at West Orange, New Jersey, was the Kinetoscope. This remarkable device appeared in 1890, and in 1893 was exhibited at the Chicago World's Fair, where it aroused a vast amount of appreciative comment. In public favor it entirely eclipsed the primitive machine of the renowned Muybridge, on view in a neighboring hall.

How the Kinetoscope Looked and Worked

The Kinetoscope was a machine of the peep-hole type enclosed in a wooden cabinet. When the person desirous of obtaining a unique visual impression had dropped the necessary coin into the slot, the electric motor started, automatically setting film and shutter in motion. The celluloid film, forty-five feet in length, moved continuously in its journey over a series of rolls, traveling from left to right; the shutter rotated from right to left, cutting up the band of pictures into separate images, so that only one was seen at a time. The opening in the shutter came opposite the lens at that precise second when the film had moved on three-fourths of an inch; hence the eye was not conscious of the passing of the picture, but instead saw one picture after another in the same spot. More than six hundred pictures, each one but three-fourths of an inch in length, were used. The motion was continuous, not intermittent. The film was perforated on the edges and controlled by sprocket



Courtesy of J. B. Lippincott Co. From Talbot's "Moving Pictures: How They Are Made and Worked."

THE KINETOSCOPE OF EDISON

A machine of the peep-hole type, enclosed in a wooden cabinet. You dropped a coin into the slot and the electric motor set the shutter in motion and started the 45-foot film, with its 600 tiny pictures, traveling from left to right over a series of rolls. The motion was continuous, not intermittent as in modern projectors.

wheels whose points fitted into the perforations, thus insuring the regular feeding of the film before the lens.

While the pictures could be viewed through the peep-hole by only one person at a time, and monotonously showed the same thing over and over again, with a tendency to jump and blur, still they were, of course, moving pictures. Dyer and Martin, biographers of Edison, do not hesitate to declare that "there can be no question that he was as much the creator of that art as he was of the phonographic art, that in a practical sense the suggestion of the art itself was original with him."

Today, the little pictures printed on the film which unreels itself for the delectation of an entire audience are exactly the same size as those used by

Edison in that early Kinetoscope of his devising. Nor have many trials and long investigations discovered a method more expedient than the use of the same four perforations at the side of each picture. In that respect, his was the achievement for some time to come.

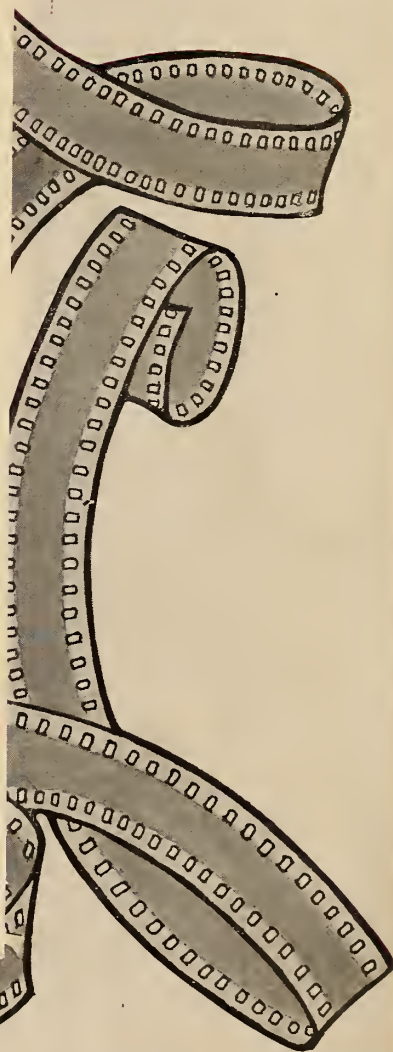
The Intermittent Principle is Applied

Edison was not the only person concerned with the motion picture at this time. Among many others, C. Francis Jenkins, a clerk in the division of the Treasury in Washington, was also working quietly by himself and, without any encouragement, overcoming great obstacles.

What he was accomplishing was not revealed until the occasion of a certain vacation trip made in June, 1894, to

ATION

ts • 1⁰⁰ a Year



his home in Richmond, Indiana. And what he did there on the first evening of his return is called by some the most important occurrence in the history of the motion picture; for there in a little store—his machine on a counter, a sheet for a curtain, and with current secured from a passing trolley wire—were actually projected *moving pictures*. This invention of Jenkins upon which he had worked so hard in his Washington boarding-house is said to be the first crude model of the modern motion picture projector and possessed of all the essential features of the present-day machine.

A Scientific David and Jonathan

Upon the return of Jenkins to Washington, there followed an association with a young man by the name of Thomas Armat, who was also much interested in the motion picture. The result of their mutual labors was a joint application for a patent on a machine employing the intermittent principle. This application was filed on August 28, 1895.

Later in the year they exhibited their machine, with films of their own making, at the Cotton States Exposition in Atlanta, Georgia. The throngs passing before the door of their concession were at first very chary of their presence at something so entirely out of the range of their experience, but the unutterable efficacy of a few free admissions soon changed this indifferent attitude. Interest in the machines was booming when an untimely and desolating fire destroyed their tent and entire equipment.

This unhappy and embarrassing accident proved most embittering to both

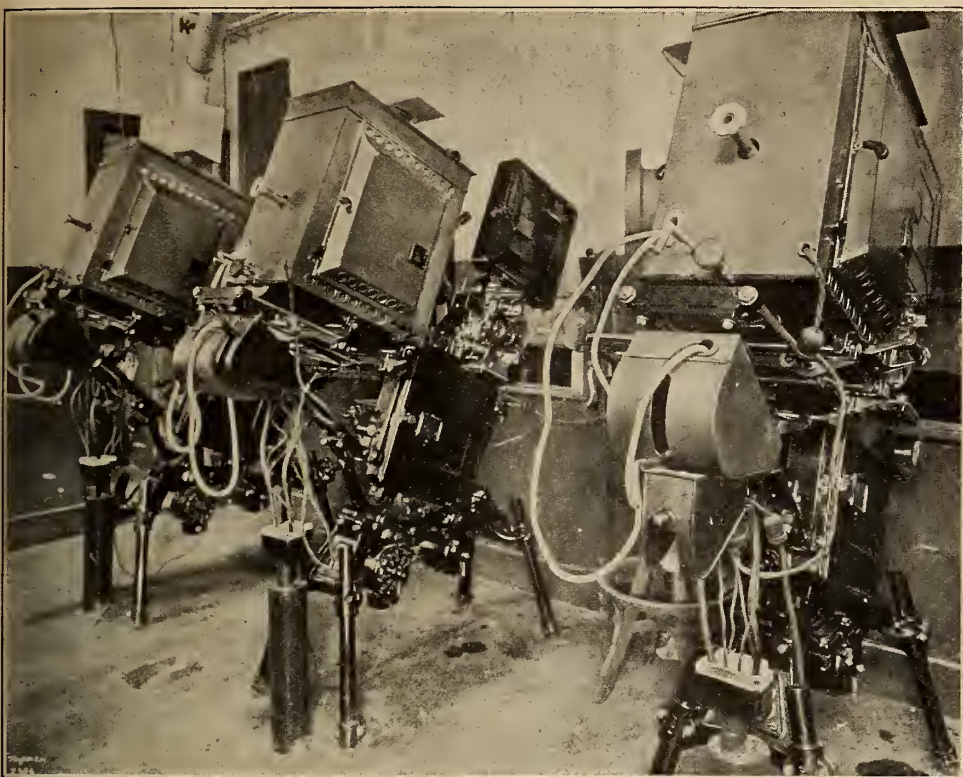
men, and there developed a lack of harmony which led later to their complete separation. Armat, the wealthier man of the two, continued his experiments alone, while Jenkins finally took his machine to Atlantic City, where its remarkable success on the Boardwalk put Edison's Kinetoscopes, also on exhibition, entirely out of the running.

So difficult, however, had the going become for Jenkins that he was finally induced to sell out his interest in the machine to Armat for the trifling sum of \$2,500. Armat entered into negotiations with Edison, but after being assured by the latter's alert agents that the public was expecting a machine from Edison with which he could never hope to compete, and that he could do nothing without the prestige of Edison's name, Armat consented to the sale of his machine under the title "Edison-Vitascope—Armat Design."

As to "Original Inventors"

Jenkins claims that on March 17, 1896, his instrument was taken without his knowledge and consent from his home in Washington, and that the machine marketed as the Edison-Vitascope was really his. As Talbot remarks in his detailed account of the motion picture:

"It appears to be a sorry trick of fortune that every great invention or development should produce a bevy of claimants for the honor of being the 'original inventor.' The word 'original' is somewhat obscure and ambiguous, but it is employed frequently. As a matter of fact, it is a wise invention that can single out its creator. Animated photography has been no exception to the rule. Lawyers and the



Courtesy of Nicholas Power Company, New York.

The contrast between these highly efficient, smooth-working, modern projectors and the early machines is so impressive as to make comment superfluous

courts have reaped a rich harvest from protracted litigation in the effort to settle the question once and for all, with the inevitable result—the law has left the matter in a more hazy condition than ever.”

In 1897 Jenkins was awarded the Elliott Cresson Medal in recognition of his achievements, but the golden harvest of profit that was reaped in the fields of the motion picture was not for his gathering.

Over the Seas to England

At the time of the exhibition of Edison's Kinetoscope at the Chicago World's Fair, two Greeks from overseas, realizing with keen penetration its

commercial possibilities, secured a model and upon their return to England showed it to Robert W. Paul, an electrical engineer and scientific instrument maker, asking him to imitate it. Upon investigation, Paul discovered that the market of Great Britain was an open one, for Edison had not thought it necessary to patent his production there. Forthwith, acting entirely within his legal rights, Paul began to manufacture machines, with such marked success that he soon had purchasers all over the world, Charles Pathé of later renown being one of his first customers.

In a business-like attempt at retalia-

(Continued on page 242)

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

How the Graph Aids Lame or Lazy Mathematics

THE simple housewife whose method of bookkeeping was confined to the use of a sugar-bowl, mug and pickle-jar for the apportionment of her household budget always had her prospective expenditures and cash balances conveniently before her. To her the representative figures would have been a confusing and intricate substitute, requiring a "mathematical mind" for their intelligent interpretation.

This primitive performance obviously has its limitations and has been made the subject of much raillery, but the business man who today demands graphic charts and diagrams of his financial transactions comes perilously near to the woman's arguments in favor of her sugar-bowl-and-pickle-jar system. He, too, finds that numerical data require an intelligent mathema-

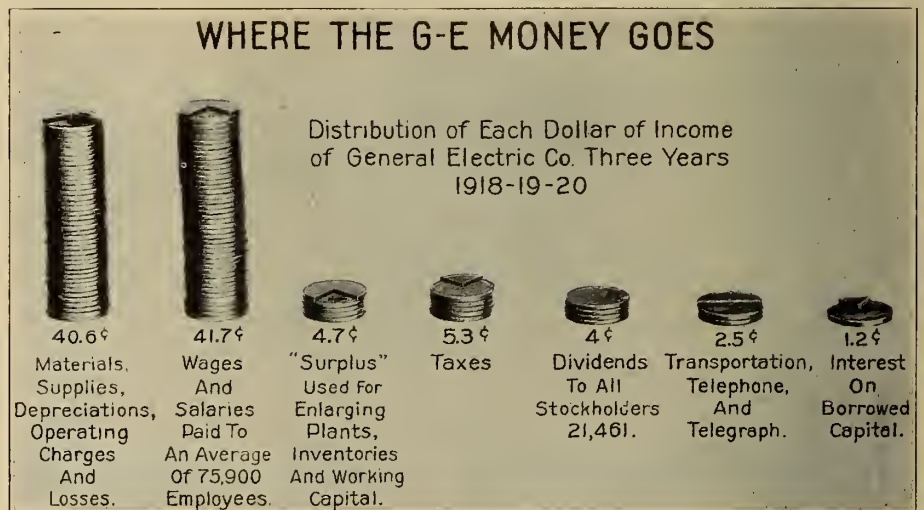
tical reaction to be informative, whereas his graphic chart, presenting involved statistics in picture form, conveys the story with a convincing vividness which approximates the realism of the chink of "change" in the pickle-jar.

"Seeing" How Income Is Distributed

It will readily be conceded that the graph reproduced herewith, visualizing "Where the G-E Money Goes," is not so very many steps away from the system which the housewife stoutly defended, for the General Electric Company's dollar is pictured in its individual component parts, with each stack of pennies properly labeled to convey the information required.

Picture of an 8-Cent Fare

Recall, for instance, how the recent controversy as to whether the traveling



Chicago public should pay a five-cent or an eight-cent fare brought forth an explanation from the Chicago Surface Lines in picture form. In the publicity chart exhibited in the cars, the public's eight-cent fare was divided into its proportionate share of wages, cost of power and materials, the city's share, interest on bonds and loans, taxes and damages, and the company's share.

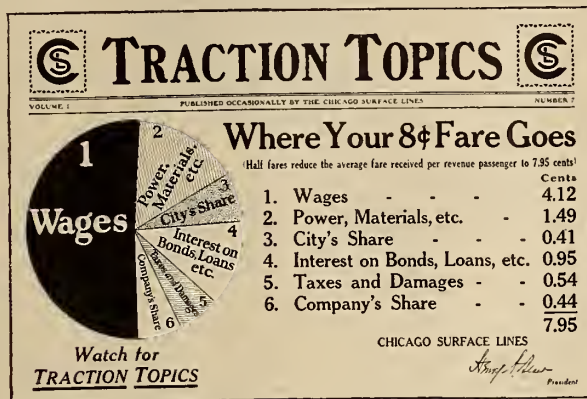
When the rank-and-file of passengers would never devote the time necessary to read a long explanation or study the figures of an auditor's report, the pictorial campaign managed to

attract the notice of even the most casual traveler.

"The Swift Dollar"

A few years ago the packers, Swift & Company, made an appeal to public

opinion by use of a graph, and they, like the General Electric Company, used the dollar as the basis of their explanation. The expenditures of the company



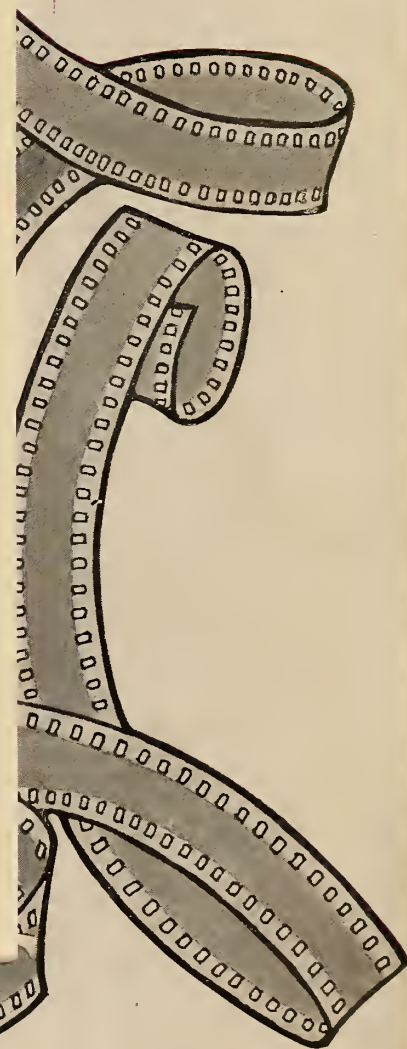
and the distribution of their profits were visualized in miniature, so to speak, by the "Swift dollar," whose graphic lesson made it famous in advertising circles.

New Perspectives in Nurse's Vocation

THE term "vocational guidance" is apt to suggest primarily the number of trades and professions to which boys may be directed, without any realization of what is being done, or should be done, to point out ways of satisfying service to girls, to whom the problem of choosing their life-work is equally perplexing and important. For it must be admitted that marriage and motherhood are not the end or spur of every woman's ambition.

In most colleges today there is a vocational adviser to whose intelligent direction numberless women owe their wise choice of a vocation at a time when it was not too late to lay the proper foundation. In the grade and high schools of our towns and cities the need of such guidance, as well as of direct vocational training, is gaining ever wider recognition, and the range of occupations presented is being broadened as rapidly as conditions per-

ts • 100 a Year



mit. Here and there throughout the country special organizations are taking form, with the purpose and ideal of co-operating with the schools in their vocational departments and helping to give greater directness and efficiency to the work undertaken.

A phase of vocational guidance which is almost exclusively feminine in its appeal, is that in which the Central Council for Nursing Education, with headquarters in Chicago, is interested. Although the nature of this work places it under the general heading of nursing, as developed today it has a far wider scope, as yet little understood by the general public. One aim of the Council is to bring such understanding to that public, and in particular to the young women who are looking for their places in the world of work and usefulness.

Visualizing the Nurse's Profession

For this reason philanthropists, prominent citizens on hospital boards, and other civic-minded men and women are co-operating through the Central Council for Nursing Education to bring up-to-date facts about the business of nursing and its affiliated occupations to public attention. Among the means chosen for accomplish-

ing this end are lectures and slides used in schools and colleges and at meetings of Y. W. C. A.'s, Parent-Teacher Associations, women's clubs, and similar organizations.

To acquaint such audiences with the true nature and possibilities of the work under discussion, various series of slides have been developed, visualizing the wide field for activity which the nursing profession opens up to women, and also suggesting something of the atmosphere in which the student-nurse lives while in training. Slides picturing practical experiences in hospital wards alternate with attractive glimpses of schoolroom and laboratory work, or show a little of the girls' home life and their social and recreational activities. Not the least attractive and important appeal of these pictures is the fact that in this way, better than by any other available means, is conveyed some idea of the high type of women who today are choosing the nurse's profession. Special films visualizing the nurse's ever-broadening field of opportunity for

service are tools which the future inevitably holds in prospect.

Organizations similar to the Chicago Council have likewise been established in New York, Philadelphia, St.



Films and stereopticon slides are pressed into service to give young women interested in nursing definite ideas of the scope of the profession today, as well as to suggest the atmosphere in which the student-nurse lives while in training.

(Continued on page 245)



Visual Activities

The World Over

ARKANSAS

Fayetteville. A strong and irrefutable argument in favor of educational films is the fact that the teaching genius and the elaborate laboratory apparatus of our highest institutions of learning can by means of motion pictures be shared with all the rest of the country. In this connection the following comment from Prof. D. H. Markham of the University of Arkansas is pertinent:

"Last week we used the reels made at the Ryerson Laboratory of the University of Chicago under the direction of Dr. Harvey B. Lemon, on Electrostatics, Electromagnetism and High Frequency Currents. They were worth several months of textbook instruction. Ideas were presented and thought was awakened that could not have been accomplished without apparatus and equipment which our laboratory did not possess. These reels brought us enough material for several days of interesting discussion. I consider the animated portion in the Electrostatics film a very powerful teacher."

So the day is here that has long been predicted. While the movie is at its height as an entertainment factor and fun-maker, it has also

gained its rightful place as an assistant teacher on the faculties of schools and colleges.

CALIFORNIA

Oakland. Last year's demand for educational pictures in the schools of California doubled the number used during the previous twelve months. The Visual Instruction Department of the University Extension Division states that in 1920-21 a total of 2,600 films were distributed, while in 1919-20 the number of programs circulated was only 1,300. Forty-seven per cent of these pictures were used by educational institutions, including universities, colleges, high schools, and elementary and private schools. Other organizations using the University Extension films included churches, Y. M. C. A.'s, farm bureaus, mothers' and teachers' clubs and Boy Scouts.

CONNECTICUT

Hartford. The Colonial Dames and the Daughters of the American Revolution co-operated recently in giving a motion picture showing on American history and good citizenship which included "A Citizen and His Government," "Hats Off," "French Explorations in the United States," and "English Settlements." Under the

ATION

ts • 100 a Year

THIS ISSUE: *Playing the Health Game*

joint supervision of the State Superintendent of Schools and Mrs. Helen P. Chapman, chairman of the Americanization Committee of Hartford County, this Americanization program will be repeated in schools all over the state.

DISTRICT OF COLUMBIA

Washington. Uncle Sam announces that four new lantern slide series are now available for distribution. These visual aids for the use of extension workers were prepared co-operatively by the States Relations Service and the Bureau of Animal Industry, and are listed as follows:

Series 126—"Selecting the Laying Hen," supplementing Department Circular 31, "Culling the Poultry Flock," and including 22 slides; Series 129—"Judging Sheep," supplementing Farmers' Bulletin 1199, and including 31 slides; Series 128—"Farm Slaughtering and Handling of Pork," supplementing Farmers' Bulletin 1186, and including 47 slides; Series 123—"Farm Slaughtering and Handling of Lamb and Mutton," supplementing Farmers' Bulletin 1172, and including 37 slides.

It is stated that the States Relations Service distributed 750 sets of lantern slides to forty-two states during the year 1921. These slides were loaned to state directors of extension for use in connection with farmers' institutes and meetings held by extension workers in agriculture and home economics. Shipments of slides were also made to Guam and Hawaii for extension work which has been developed in connection with the experiment stations in those territories.

ENGLAND

London. After next July, if children of this city see romances and sex dramas which are beyond their years, it will be because their parents personally take them to see them. It has been decreed in London that all pictures come under one of two heads, and

shall be marked either "adult" or "universal." The attendance of unescorted children under sixteen will not be permitted at the "adult" shows.

FRANCE

Paris. A new writer of the screen appears in no less a personage than Georges Clémenceau, "the Tiger of France." The virile pen of the veteran statesman, which has been a power in the journals of Paris, never sparing the political characters of his acquaintances, is now to be devoted, it is said, to the doings of fictitious characters for the edification of motion picture lovers.

GEORGIA

Atlanta. The Better Films Committee is showing wholesome motion pictures for school children every Saturday morning at ten o'clock. If one good movie show a week is considered sufficient theatrical entertainment for the children of this day, then there need be no further anxiety about Birmingham children so far as the moral effect of the films they see is concerned.

ILLINOIS

Chicago. Saturday morning showings at the beautiful Tivoli Theater have for several weeks been devoted to test-exhibits at which school children have been admitted free, for the purpose of giving exhibitors and producers a special opportunity to study their film tastes. Films widely divergent in character and theme have been exhibited each week, and 4,500 children have passed judgment upon them, screaming and shouting with delight when a subject met with their approval, or waiting in quiet expectancy through pictures which went over their heads or were lacking in juvenile appeal.

"Maud Muller" and "The Barefoot Boy" plainly bored these city youngsters, but pictures of radio sets, automobiles steered by wireless, and other mechanical inventions caused the boys to sit in rapt attention. "Ele-

phants a-pilin' teak" and obeying the direction of coolies failed to fire the children's enthusiasm, but bison running free across the prairie were greeted with shouts of delight. The skunk also won a high place as a screen favorite. At another showing an instructive news weekly was watched in silence, while an Americanization film which featured Uncle Sam and a small boy who did not know enough to take off his hat to the flag, was received with boisterous approval.

Kellerville, Payson, Burton, Fowler, Richfield and Beverly are the beneficiaries of a series of photoplays which are eminently constructive in purpose. On the program at a recent showing were "Horse Sense," two reels; "Homestead," three reels; "Layers and Liars," one reel, and "The Happier Way," one reel—all dealing with farm and home subjects and all sponsored by the Departments of Agriculture of the United States and of Illinois. Adams County Farm Bureau, the first in Illinois to take advantage of this educational enterprise, is planning to continue the exhibit of these and similar pictures at various towns during the spring and summer.

Lexington. The Parent-Teacher Association reports that they have just succeeded in raising enough money to complete a fund with which a stereopticon machine will be purchased for the school.

INDIANA

Indianapolis. The Reverend Dr. Worth M. Tippy, secretary of the Commission on Social Service of the Federal Council of Churches, gives high praise to the Indiana Indorsers of Photoplays, and says: "The thing that must be done everywhere is to establish a personal contact with the theater-owners and managers and impress them with the kinds of films that must be shown to the people."

JAPAN

Tokio. There is in prospect a film exchange to serve churches, schools, colleges, Y. M. C. A.'s and missions in Japan. This work is going forward under the direction of the Southern Baptists, Atlanta, Ga. Mr. E. N. Walnes, who is in charge of this work, is making arrangements to buy and rent selected motion pictures of all sorts.

MEXICO

San Jacinto. Mexico's educational system is to be speeded up by educational motion pictures. The head of the department of agriculture announces his policy in a statement reading in part as follows: "It is my aim to introduce in Mexico modern methods of education with instructional pictures, in order to lay a firm basis for the future moral and intellectual elevation of our peasants and Indians."

MICHIGAN

Grand Rapids. Only a generation ago most of the really "good people" were sure that play-actors were direct in descent from the Evil One and that theaters were indecent places. What would have been their reaction to such a situation as the following, merely touched upon in the following matter-of-fact paragraph by the *Grand Rapids News*?

"The film, 'The Bluebird,' will be given at 10:00 a. m. next Saturday at the Majestic Gardens, under the auspices of Grace Episcopal Church Sunday-school. Another film, 'Huckleberry Finn,' will be shown at the same theater the morning of February 11. The manager of the consolidated theaters is allowing the Sunday-school the use of the theater rent free. Proceeds will go to the Sunday-school children's mite fund, which is used exclusively for the welfare of unfortunate children all over the world."

TION

ts • 100 a Year



Sault Ste. Marie. At a meeting of the Parent-Teacher Association of the Junior High School during January, many complaints were registered against the type of pictures which were being shown to children at the regular theaters, and a motion was discussed to give picture shows under the auspices of the schools. It was suggested that clean comedies and films of an educational character be shown Friday and Saturday evenings, and that the matter be carried to the other Parent-Teacher Association of the Sault for their support. At another meeting a committee was named to interview members of the Board of Education for the purpose of inducing the board to purchase a projector and other equipment for the high school auditorium.

NEW JERSEY

Camden. Two films of the New Jersey Safety Council, entitled "Danger That Never Sleeps" and "Knights of the Cross Roads," have been receiving considerable attention at various public gatherings. On Fire Prevention Day they were presented to citizens of Camden at the Y. M. C. A. building in an effort to show citizens the best means of saving property when in danger of fire. It is evident that many fires are started by citizens who "just did not think."

Linden. The high school is giving a series of entertainments in the school auditorium to help defray the expense involved in the purchase of a moving-picture machine for classroom use. Appropriate advertising posters have been made by pupils in the drawing classes, setting forth the fact that the shows are for the benefit of visual instruction in the schools. Three of the senior boys have qualified as operators, and they in turn are teaching others so that there will be no dearth of operators in any of the classrooms. More than \$100 was netted by the first moving picture show, held several weeks ago.

Newark. The New Jersey State Normal School has just received its new motion-picture equipment. In the auditorium a thousand pupils at a sitting can benefit by the screen lesson and the instruction which accompanies the filming.

Newark. A demonstration of the latest ideas in projection was recently given at the Franklin School under the direction of A. G. Balcom, assistant superintendent of schools. The program included the following films: for literature, "Washington Irving" and "John Greenleaf Whittier"; for nature study, "Baby Songbirds at Mealtime" and "Birds and Flowers"; for geography, "Going Down to Buenos Aires"; for history and civics, "Hats Off." These motion pictures were declared by Mr. Balcom to be among the finest "educationals" for classroom work that have yet been developed.

Perth Amboy. The officers and congregation of the First Presbyterian Church are well pleased with the latest progressive step taken by them, that of installing a projection machine for motion pictures. The screen is used every Sunday evening and is followed by a song service and a brief address by the pastor. Such films are used as "The Good Samaritan" and "The Prodigal." All seats are free.

NEW YORK

New York. Rabbi Stephen S. Wise is startling New York and Chicago with pronouncements against the movies and the legitimate stage which should help to hasten a general theatrical housecleaning. "The theater at its best is one of the great institutions of society," the Rabbi declared, "but at its worst the theater is in danger of becoming such a menace to health as is the cesspool and its putrescent sewage; and the menace is now pres-

ent in some of the vile things that are being perpetrated in New York." He said he would not even tar and feather some of the producers and actors appearing on Broadway, "for even the pitch would be defiled. Either the theater will cleanse itself, and at the earliest possible moment, or we will rule it with the rod of censorship; although censorship is always far from being an altogether beneficent institution. It must be done for the sake of the young, for unfortunately society is suffering today because of its acceptance of the maxim that youth must and will have its fling."

Rochester. Motion-picture machines have been installed in the public schools, and educational films will be used as an aid to quicker and more comprehensive understanding of the various school subjects.

OHIO

Toledo. The Museum of Art, which was the first museum to include moving pictures in its educational plan, showed films of "little old New York," Ellis Island, Battery Park, and "the Avenue" in its Saturday and Sunday programs in February in its crowded auditorium. These weekly instructional performances are designed primarily for children and there is no admission charge.

OKLAHOMA

Oklahoma City. Prof. J. W. Shepherd, of the extension division of the University of Oklahoma, reports that four more schools have been added to the list of schools owning their motion-picture machines and taking membership in the Oklahoma Visual Education Association. The latest schools installing this department are the Coweta public schools, Bartlesville Junior High School, Ashland Consolidated Schools and Claremore public schools.

RHODE ISLAND

Providence. The Samuel Slater School is using motion pictures for visual instruction. In this city special Saturday performances are also provided for boys and girls.

SOUTH DAKOTA

Burke. It may seem a far cry from the Back-to-the-Farm movement and the agricultural prospects of this country to the matter of "movies," but it requires little discernment to glean from a country mother's letter how important a bearing the motion picture may have on our food supplies. This woman, isolated from the social and educational influences of a city, writes of the joy and relief brought to wives and mothers of the farm who "go to town" on Saturday afternoon by the "free shows" which one of the theaters has been giving since June of 1921. "Here is a work of the highest civic importance," says *Film Progress*, "broadly humanitarian, and incidentally of great economic value. Many small communities might profit by this experiment, which binds the townspeople to the theater and attracts busy farmers to the trade centers."

SWEDEN

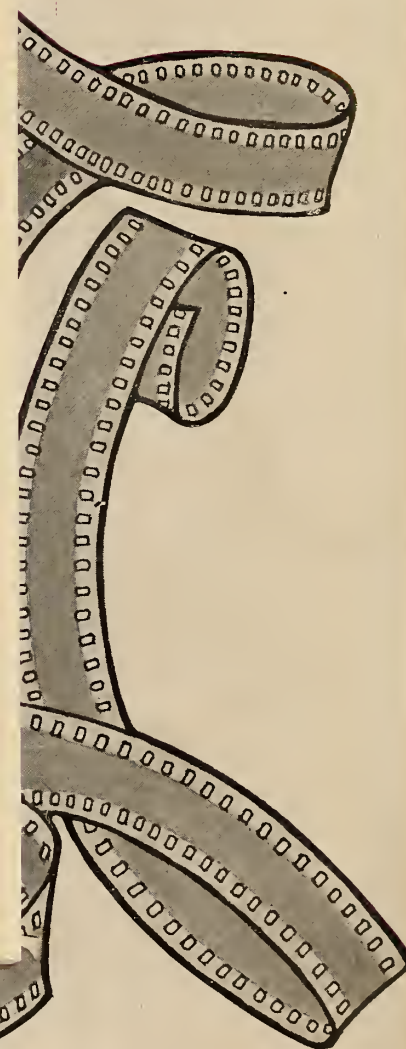
Halmstad. While Miss Wendela Engstrom, a teacher in the Flickskolan in Halmstad, was visiting the schools of the most progressive American cities she became greatly interested in American visual methods. While visual education has already made good progress in Sweden, Miss Engstrom looks forward to a time when there will be a nation-wide distribution of educational motion pictures among the schools of her country, controlled from the principal cities.

WISCONSIN

Milwaukee. The Parent-Teacher Association has arranged to present the Trowbridge Street school with a motion-picture projector. It was announced at a recent meeting that most of the money had been raised.

ATION

ts • 100 a Year





The Films in Review

By M. M. F.

RIP VAN WINKLE

GRACELESS, irresponsible, lovable old Rip! Washington Irving gave him immortality, but it has remained for the screen to make him universally popular.

The film adaptation of the story closely follows that stage version in which Joseph Jefferson so long endeared himself to his audiences. The dramatization is, of course, replete with incidents not to be found in the original tale—additions made necessary by the briefness of Irving's sketch. These interpolations, however, which tend to emphasize the deficiencies of Rip as the head of a family and his marked proficiency in the gentle art of loafing, in no wise detract from the charm and

whimsy of the original narrative. Not even that very radical change which preserves his termagant consort alive and remarried against his return makes any perceptible difference in the spirit of the story.

Well does Thomas Jefferson demonstrate that the mantle of his father has fallen upon his shoulders. At all times is his performance convincing, whether

he is roistering at the old Dutch inn, lounging with his dog upon some grassy knoll of the Catskills, or, tattered and maltreated by the cruel years, is treading familiar ways grown strangely unfamiliar. So great, indeed, is the appeal of his abandoned shiftlessness that one is tempted to revise pre-



RIP VAN WINKLE

Tattered and torn, addled and lost—alas for poor Rip!

conceived ideas of what constitutes high moral conduct.

The quaint tradition and folk-lore that are so happy a part of many of Irving's tales are pleasantly visualized in the film play. Little did old Hendrick Hudson think, when he shuffled off this mortal coil, that a facile pen would compel his unhappy ghost to frequent the shadowed glades overlooking the fair river bearing his name. It is difficult to imagine anything more picturesque than the glimpses the screen gives us of his misshapen crew playing at ninepins, the echo of their bounding balls reverberating through the blue hills like long rolls of far-away thunder.

The occasion of Rip's desolate return to the village of his childhood, is made the opportunity for a few brief but effective glimpses of American history. Paul Revere on his midnight dash, the classic fife-and-drum corps, and George Washington taking the oath of office, are flashed across the screen to visualize the march of events during the long years of Rip's dormancy.

While the beauty of the natural settings leaves nothing to be desired, the indoor backgrounds do not indicate any too great exercise of historical precision or artistic judgment. Nor are the crowd scenes well handled. The individuals comprising the various groups listen obviously for the voice of their directors and exhibit a self-consciousness that is painful both to themselves and their optiences.

The performance of Thomas Jefferson is, after all, the outstanding feature of the picture. One can be content to overlook certain dramatic and technical deficiencies when there may be carried away such delightful images as those of the convivial Rip, lightly and continually breaking his vow to renounce forever the flowing

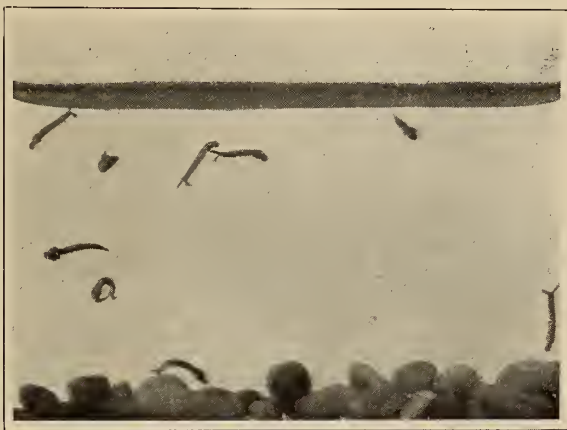
bowl, or obligingly perverting the truth to satisfy an importunate wife.

Distributed by W. W. Hodkinson Corporation.

THE MOSQUITO

ALMOST every one has been interested in the mosquito at one time or another, even if his interest has been immediately personal and essentially unscientific. The fact, however, that this unpleasant little insect has a picturesque life-history and possesses an organism of unusual minute perfection is not generally appreciated; nor, perhaps, that it is the female of the species alone which annoys us with its bloodthirsty "bite."

According to the revelations of this effective nature-study reel, the brief career of the mosquito is one of variety and adventure. Tracing its origin back to the muddy waters of some small pond or puddle, where the maternal parent has laid her many eggs in raft-shaped formation, the film shows us the baby mosquito wriggling from the pointed end of the egg out into the cold world. Microscopic views are effectively employed here, as elsewhere throughout the film, to illustrate the marvelous completeness of the

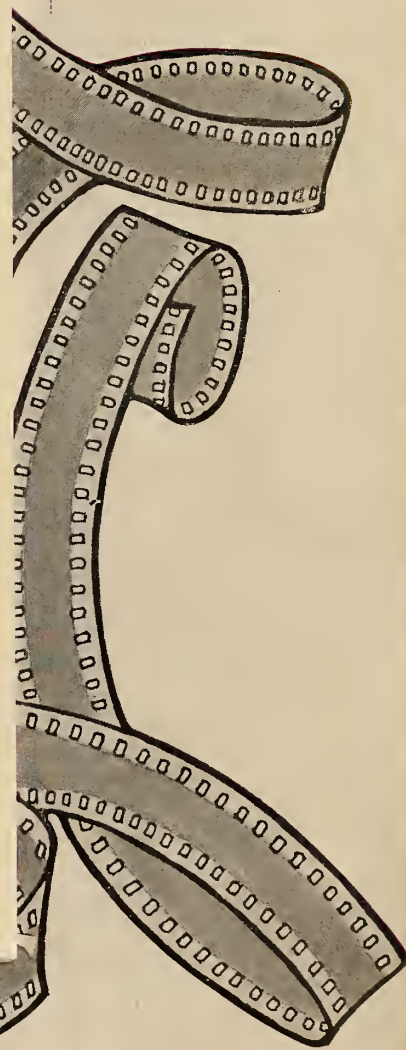


THE MOSQUITO

The Massacre of the Guilty! The final suffocation scene is not far off. Note the film of oil covering the surface of the water, and the queer contortions of the larvae in their frantic efforts to cleanse their breathing-tubes of oil.

ATION

ts • 100 a Year



equipment with which nature has provided it.

The "wiggler," as the mosquito is called during the early stages of its development, is at home in the water but has to come to the surface every few minutes for air. And this is the time when its human enemies get in their deadly work. Pouring oil on the waters means destruction for the little wiggler, for its tiny breathing apparatus cannot pierce the surface film of oil; and deprived of air, there is nothing for the young insect to do but to leave this existence before ever have been tasted life's assorted joys. This dark tragedy is vividly portrayed by the picture in what the optience feels is a real drama of life and death.

The awkward process called growing up makes it necessary for the wiggler to shed his skin two or three times in the short space of three or four days. After this trying experience, which involves much wriggling and twisting, comes the pupa or "tumbler" stage, culminating in the final appearance of the mature insect. The swift emergence of the full-grown mosquito is pictured in an all-too-brief scene, in which we see it balancing on its cast-off skin while its wings dry.

All of these phases of development have been carefully and clearly combined into a real cinematic narrative. The story element will appeal to the child while he is absorbing facts that will broaden his cultural outlook and add to his informational background. A film that presents such valuable material in an informal yet scholarly fashion is educational in the truest sense of the word.

No community which plans to wage a determined campaign against the omnipresent mosquito could do a wiser thing than to lay a broad foundation for the warfare by educating its bold warriors—both the grownups and the boys and girls—in the full history of the mosquito, from its inoffensive aqueous babyhood to its pestiferous aerial maturity. The separate chapters of that story are familiar to most, but the motion picture is the ideal means of supplying the "continuity"

needed for complete understanding. Even the youngest mosquito-fighter will then know why the first duty of the community is to destroy the mother mosquito's favorite breeding-places in puddles, cisterns, open barrels, and the rain-filled tin cans, pans and old shoes that inhabit so many of our vacant lots. Doing away with these potential nurseries will excuse us from the need of adopting the oil-can method a little later.

Produced by the Society for Visual Education, Inc.

THE RULING PASSION

A THOROUGHLY delightful, finely humorous and "everydayish" sort of tale, of a man whose ruling passion is the love of work, the joy of overcoming difficulties. Chafing under the prescription of "Rest! rest!! rest!!!" which his physician sternly decrees and his wife lovingly enforces, a retired manufacturer builds up an elaborate alibi and proceeds zestfully, incog., with limited capital and a youthful partner, to fight the battles of business all over again.

George Arliss' portrayal of the masquerading millionaire is, in its quieter way, quite as fine a piece of character work as his famous Disraeli. Here indeed is a finished actor. Doris Kenyon in the rôle of the petted daughter is as refreshing as a June breeze, and the rest of the cast proves well up to par. Even the title writer gives constant evidence of knowing his way about among words witty and wise, though doubtless many of the titles were transferred bodily from the clever story by Earl Derr Biggers from which the film play was adapted.

This picture is one of those rare delights of the screen—a play that brings equal joy to young and old, and that actually pays dividends on the time invested in seeing it. Not a "great" picture, perhaps, in the sense that *Orphans of the Storm* and *The Four Horsemen* are great, but 100 per cent just the same. When your neighborhood exhibitor advertises "Come and bring the family," you can take him at his word—this time.

Released by United Artists



THE LITTLE MINISTER

With the gypsy for a champion, old Nanny need not fear the dictatorial males who have darkened her doorway.

THE LITTLE MINISTER

WHEN Famous Players-Lasky produced *THE LITTLE MINISTER*, the lovers of Barrie were naturally all aquiver lest this beloved novel be maltreated in its cinematic transformation.

It is surprising that the more or less simultaneous advent of another *LITTLE MINISTER* has not aroused a volume of comment from critics, for here in this Vitagraph production is an unusually fine picture, which has grasped the evanescent charm of Barrie in satisfactory manner.

The film pleases with its loyal adherence to the facts of the novel. The director has been intelligent enough to realize that he could not improve upon Barrie's story. He has not juggled with the personnel nor improvised situations to suit his own judgment of what constitutes the effective. Using what the author has provided, he has built a play which possesses

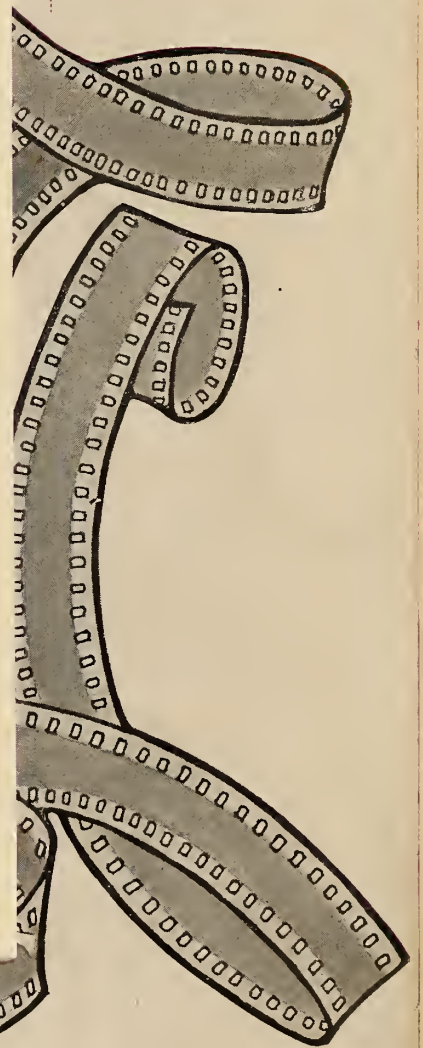
steadily increasing dramatic tension until the very real and dreadful storm sweeps the characters into a convincing climax. The chief violation of the original plot is to be found in the omission of the theme of the schoolmaster—the unrecognized father of the little minister. And, since the briefness of a photodrama demands a compactness of plot not necessary in a novel, that omission perhaps makes for greater dramatic sureness.

The quaint settings in this Vitagraph production easily suggest the homely charm of the little Scotch village. There is no obvious and careful straining for simplicity, but rather the real achievement of naturalness and realism.

The rôle of the charming, elusive Babbie is a most difficult one to interpret and an actress of ability need feel no reproach for any lack of attainment in handling the part. Alice Calhoun, richly endowed with beauty and life, does well with the unusual opportunity offered her.

ATION

ts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*

She is certainly more sincere and convincing than was the superficial Betty Compson in the Famous Players-Lasky production. James Morrison as the little minister also offers a genuine bit of good acting. Equally pleasing are those in lesser rôles, which are not caricatured as were the good deacons, for instance, in the other cinematic version.

Filming Barrie is like painting a flower. You have finally the image with which to delight your eye, but the fragrance cannot be captured. This partial and inevitable failure cannot be laid at the director's door, however, but rather is to be found in the limitations of the screen. Vitagraph is to be commended on this production of *THE LITTLE MINISTER*.

Produced by Vitagraph.

WITH STANLEY IN AFRICA

MR. LAEMMLE, president of the Universal Film Company, declares that *WITH STANLEY IN AFRICA* is the "cleanest, truest, most absorbing true-history chapter-play that any

producer has ever made." Mr. Laemmle is, of course, well informed concerning the production of his company, but whether or not all will agree with his assertions is a question for quiet reflection.

This serial is one of a number recently made by Universal, in which there has been a conspicuous attempt to provide a background of such historical significance as to make the pictures vital and worthwhile. These recent serials represent an effort to regenerate the serial, while at the same time retaining many of its typical characteristics.

Certainly no more fertile theme for screen dramatization could have been selected than Henry M. Stanley's memorable expedition in 1869 to find David Livingstone, then long lost in the African wilds. How his efforts met with success and how his expedition aroused explorers, led to measures for abolishing the slave trade, and inspired plans for the opening up of the Dark Continent, is a matter of history.

It is a striking comment on the gen-



WITH STANLEY IN AFRICA

Trekking across the African veldt is a colorful matter

eral intellectual status of the American populace that before such worth-while material is acceptable commercially it should have to be garnished with thrills and sensations. The first two "chapters" of *WITH STANLEY IN AFRICA* as reviewed are absolutely of the good old serial style, save for the fact that the spectacular events portrayed are linked with historical fact. It is frankly admitted at the beginning that fictitious characters have been introduced and such facts interpolated as seemed necessary to give greater vividness and increased romantic interest to the already picturesque and romantic theme.

The hero, represented by George Walsh, is an individual not known to the annals of history, and his miraculous escapes before ever he joins Stanley are nerve-shattering. Finally arrived in Africa, he is harassed by a young girl reporter who makes a frantic attempt to secure permission to join the expedition. She in her turn is menaced by such frightful catastrophes that her adventures in the second chapter alone would overburden a program picture.

In the subsequent reels, however, which show the expedition penetrating into the heart of the African continent, the action will doubtless become more convincing and sincere. The perils which the intrepid explorer confronted from hostile native, wild beast and natural obstacle, can scarcely be exaggerated even in a modern motion picture serial. This portion of the picture is based upon information and accurate data gathered by the Universal Smithsonian Expedition on a recent trip into the heart of Africa, and undoubtedly possesses real atmosphere and detailed accuracy.

It is the belief of the producers that this new type of serial will prove to be of genuine educational value and that because of its subject-matter it is especially adapted to schoolroom use. It must be admitted that this picture will probably give many children and adults as well their first real information concerning the fauna and flora of Africa, in addition to

first-hand information concerning the story of Stanley. And it is a debatable question whether it is better to get worth-while facts and impressions by way of melodrama than not to get them at all; for these facts, thus presented, will probably abide in the childish memory far longer than if they were projected there by a more refined and subtle method.

Produced by Universal.

ABREAST OF THE SCREEN

A Sailor-Made Man

One of Harold Lloyd's rollicking fun-makers, involving cheerful chases and dexterous dodges aboard ship and through the adventure-filled streets and palaces of an Oriental city. Deserves the family permit. (*Associated Exhibitors.*)

A Wide Open Town

Conway Tearle has a most convincing and likable personality, even when the exigencies of the plot turn him into a gambler, murderer and convict. The theme deals with the underworld and is not to be recommended for the unsophisticated, but the picture is well directed and moves with dramatic sureness. (*Selznick.*)

Beyond the Rainbow

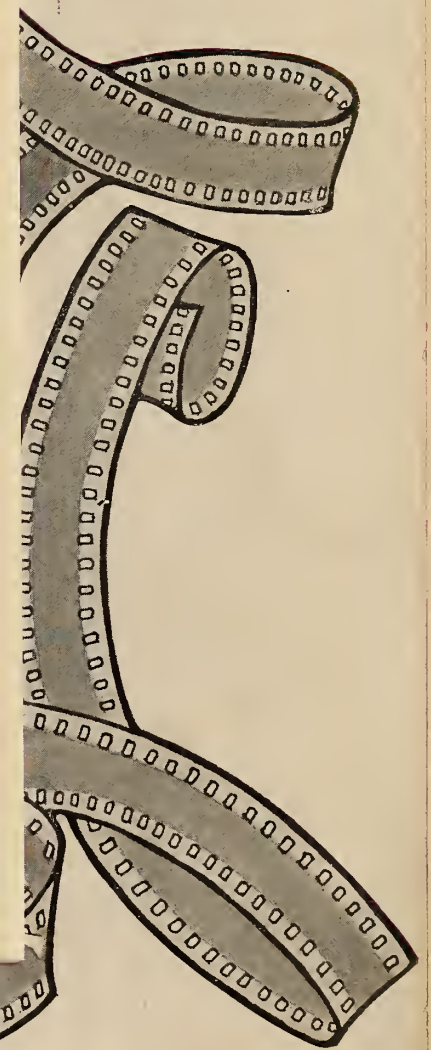
Using an all-star cast of widely-known screen celebrities, and beginning most impressively, this film winds a devious way to an ineffectual ending. When you finally get beyond the rainbow, you don't know just how or why you happened to get there. (*Robertson-Cole.*)

Foolish Wives

If this much-heralded "million-dollar picture" were so fortunate as to possess a vital and elevated theme instead of one dealing with superficial and forced situa-

ATION

ts • 100 a Year



tions, there would be some justification for its somewhat decadent artistry of presentation. Erich Von Stroheim, "the man you love to hate," who is really responsible for the production, presents a masterful interpretation of a sensual, bestial bully heavily veneered with Prussian militarism. Rumor hath it that he invented the plot from scene to scene as he directed the film. The critical picture-goer has a sneaking suspicion that for once rumor speaks truth. (*Universal.*)

Forever

Thus retitled, Du Maurier's "Peter Ibbetson" appears on the screen, starring the delectable Elsie Ferguson and the popular Wallace Reid in a charming, artistic production. There are moments when one yearns for a John Barrymore in the rôle of the romantic hero, although "Wally" gives a decidedly creditable performance, visibly responding to the inspiration of Miss Ferguson's lead—as who would not? (*Famous Players-Lasky.*)

French Heels

Unconvincing and wishy-washy as to plot; ditto as to acting. The few bright spots in the film are afforded by Irene Castle's graceful dancing, but these brief interludes are mere oases in a desert of unreality and mediocrity that bores one to jeers. The nimble-footed Irene would do well to stick to her last. Nothing for the censor to bother about, either way you take the phrase. (*Hodkinson.*)

Her Husband's Trademark

The outré gowns of Gloria Swanson make the most important contribution to the cubist plot, and the most sincere and genuine acting is done by a mountain lion which makes a reluctant entrance and a sad exit. Idle amusement for an idle moment! (*Famous Players-Lasky.*)

Jane Eyre

The old-time favorite is filmed in such delightful manner that all its quaintness and charm remain untouched by the un-

compromising directness of the screen. (*Hodkinson.*)

Love's Boomerang

An artist, his adopted daughter, a mis-mating and subsequent emotional agonies, satisfactorily relieved, form the dramatic fodder for this film. An interesting picture that develops melodramatic tendencies before the end. What's in the title is yet to be determined. (*Famous Players-Lasky.*)

Love's Redemption

Love certainly works wonders! This time, functioning under the gentle manipulations of Norma Talmadge, love saves Harrison Ford from a heavy beard and a drunkard's fate in colorful Jamaica. Some people might care for this film. (*First National.*)

Moran of the Lady Letty

Over the bounding main with Rodolph Valentino as a shanghaied sailor and Dorothy Dalton as a Norse captain's daughter. The plot is a rousing one, and hero and heroine have to kill off a lot of bad souls in order to survive through to the last reel. A sea story of adventure—interesting, but not especially plausible. (*Famous Players-Lasky.*)

Never Weaken

Another comedy of the familiar Harold Lloyd brand, replete with the delicious thrills caused by careless dangling from various sections of a skyscraper's anatomy. Boys shout, little girls shiver and squeal, and even grown-ups gasp happily as the merry, scary picture unreels. (*Associated Exhibitors.*)

Orphans of the Storm

D. W. Griffith has written on film the story of the French Revolution in superb style. Here is a genuine screen classic which will temporarily silence the voices of those who decry Mr. Griffith's artistic judgment. (*D. W. Griffith.*)

Pay Day

Those who don't care for Chaplin tactics are uncompromising in their disapproval of those who do. The fact remains that "Pay Day" is funny and shows the peculiar technique of Chaplin at its best. (*First National.*)

Penrod

The pleasantry of Booth Tarkington transferred to the screen in more or less agreeable manner by Marshall Neilan, and interpreted in what is considered a very satisfactory way by that precocious child of freckles, Wesley Barry. (*First National.*)

Queen of Sheba

An exceptional and spectacular drama in which William Fox gives us a more circumspet Solomon than does I Kings 11. So much for civilization's progress. The film imparts a certain tangibility to the legendary Queen, except in the matter of her wardrobe, which for the most part is a negligible matter. (*Fox.*)

The Green Temptation

The exigencies of the plot swing the rapid Betty Compson from a Parisian street fair across the French stage, into an Apache dive, and through the front trenches of the war, whence she emerges pure and soulful, having shed the shadows of her dubious past like an outworn garment. A reformation not entirely convincing, but very moral. (*Famous Players-Lasky*)

The Prodigal Judge

The genial face and fine acting of Maclyn Arbuckle add flavor and effect to scenes full of genuine pre-war southern atmosphere. There is a moral for those who must have one and melodrama a-plenty for those who demand thrills in their visual fare. (*Vitagraph.*)

Tillie

Mary Miles Minter, as a little Menonite maid, makes perhaps a stronger appeal than usual in this pleasing little drama with its quaint dramatic background. (*Famous Players-Lasky.*)

Announcement

WITH the May number, VISUAL EDUCATION will adopt what has come to be the new "standard size" among magazines—the 9x12 page.

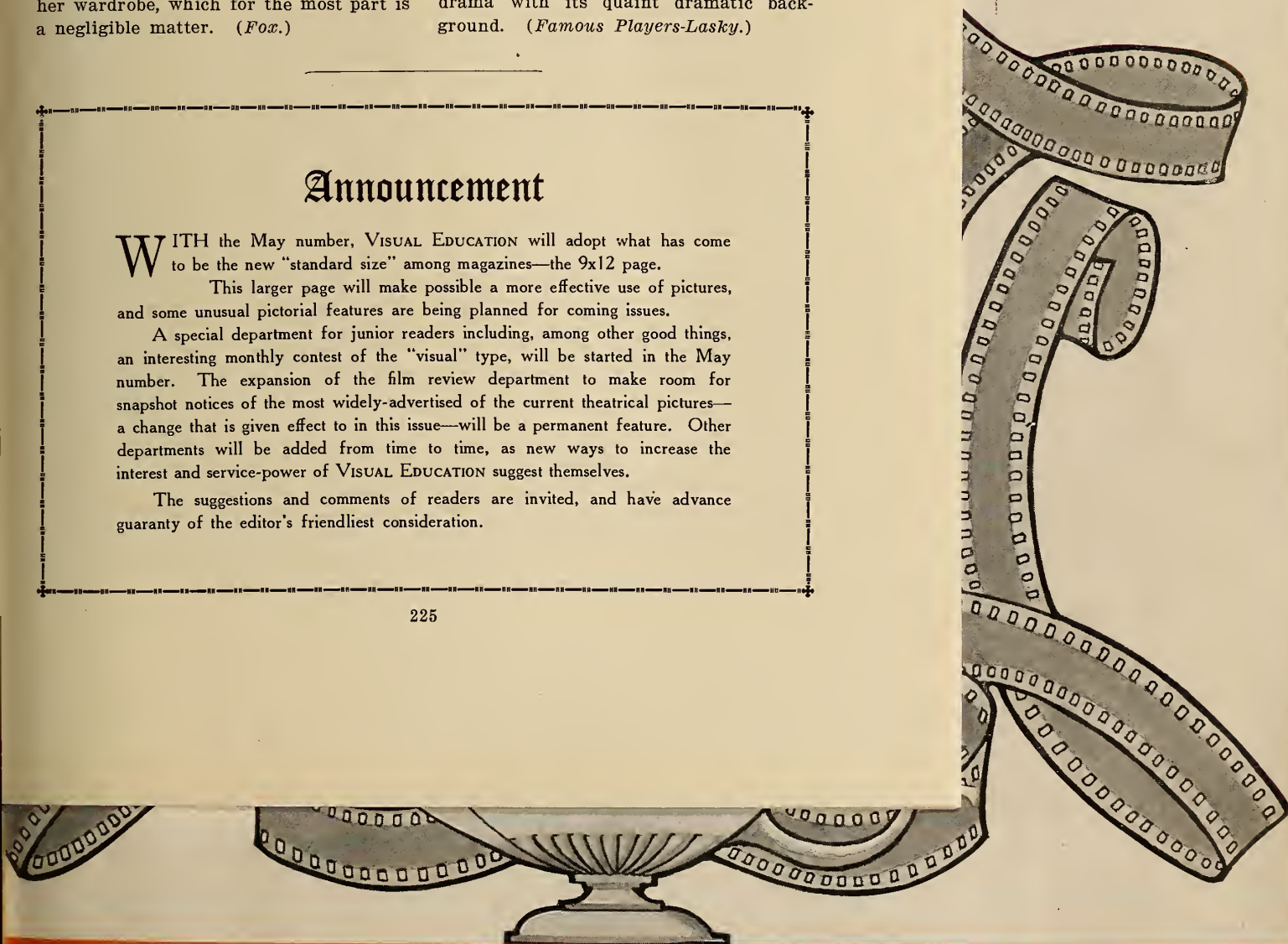
This larger page will make possible a more effective use of pictures, and some unusual pictorial features are being planned for coming issues.

A special department for junior readers including, among other good things, an interesting monthly contest of the "visual" type, will be started in the May number. The expansion of the film review department to make room for snapshot notices of the most widely-advertised of the current theatrical pictures—a change that is given effect to in this issue—will be a permanent feature. Other departments will be added from time to time, as new ways to increase the interest and service-power of VISUAL EDUCATION suggest themselves.

The suggestions and comments of readers are invited, and have advance guaranty of the editor's friendliest consideration.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*



**Chamber of
Commerce
Collects
Public
School
Data**

The recent national survey made by the National Chamber of Commerce, co-operating with the schools and the American City Bureau, puts into concrete form some facts which, though not new, meet badly to be voiced, and some others which it is hoped will startle business men the country over into a sense of personal responsibility regarding the inadequacy of our public schools. The basis of the committee's data and summary was an inquiry sent out to superintendents of schools in cities with populations in excess of 8,000.

The survey, which covered 377 cities, states that in 47 per cent of cases where boards of education are "independent," or free from political manipulation, the most efficient administrative and educational results are obtained. "The best interests of the public schools," says the report, "cannot be served in a city where the budget of the board of education may be reduced and remodeled by city officials."

The survey shows that the school receipts in the 377 cities for the last fiscal year were \$353,260,000 and that the expenditures of these same cities during that period were about \$2,000,000 less than income.

The funds are from five sources and

are supplied in the following proportions: From the states, 11.6 per cent; the federal government, 1.3 per cent; the county, 5.7 per cent; local taxes, 65.4 per cent; non-revenue or miscellaneous sources, including income from sale of bonds or short-time loans, 17 per cent. The survey shows that of all cities reporting, 70 per cent do not receive a dollar from the federal government. Teachers' salaries aggregated \$180,000,000, or 64 per cent of the total current expenses of the schools.

The relation of capital outlay, aggregating \$51,727,554, to the total expenditures showed that nearly 85 per cent was utilized for sites and new buildings. A total of \$1,341,000 was expended for medical inspection and dental and nurse service in the 377 cities named. Only 1.8 per cent of the total expenditure was spent for the alteration and equipment of old buildings. Commenting on this, the committee said:

"The smallness of this amount is of particular interest in connection with the findings of this committee in their report on school-housing conditions in American cities. This report shows that a large percentage of the children in the public schools are continually menaced by the insanitary conditions and fire hazards in many old school buildings now in use. In eastern cities the conditions are particularly bad."

Worse Things than Movies

An editorial appearing in a recent issue of *SCHOOL* considers and comments on the startling figures brought to light by a questionnaire sent out by Mrs. Estella L. Moulton, a former chairman of the Better Films Committee of the Illinois Council of Parent-Teacher Associations. The statistics resulting from the questionnaire indicate that the movie patronage of six Chicago grade schools amounts to the sum of \$46,000 a year. Of the 3,000 children questioned, 87 per cent attend picture shows from one to seven times a week, hundreds of these boys and girls admitting that it is a fixed habit.

The possible effect on scholarship and deportment was indicated by the report that the group of 275 children at the head of their classes attended movies 110 times less every week than the corresponding 275 at the foot of the class. Notwithstanding these figures, *SCHOOL* does not condemn movie-going on the part of school children.

"We are tempted to go so far as to deny that even excessive attendance necessarily involves the wrecking of the educational venture. The difference between 393 and 503 (the movie attendances of the highest and lowest groups in the classes examined, respectively) is considerable, but it is not so great as the difference between the leaders of their classes and those who tag along at the foot. . . . These figures are not such as to condemn movie-going on the part of pupils."

More than this, the editor of *SCHOOL* opines that there are worse places where one might be than in even the worst of the movie shows, suggesting that the time spent on a street corner with a group of vicious companions could easily be far more injurious.

* * *

Eyes and the Backward Child The Junior Red Cross has established a \$5,000 fund to aid parents in buying glasses for their children. Already 200 children have been given "new eyes," according to a report issued by a local chapter of the Red Cross. The fund

is self-sustaining, in that the children pay back the cost of their glasses on the installment plan.

The Eye Sight Conservation Council of America is responsible for the statement that out of 100,000 pupils in the New York public schools who fail to be promoted each year, 50,000 have defective eyesight, and 25,000 are suffering the humiliation of being "left-backs" simply because they are desperately in need of glasses.

It is said that many children appear backward and stupid for no other reason than because of their inability to see quickly and correctly what the others gain at a glance.

* * *

More "Pros" from Sir Gilbert Parker

The screen has no more ardent advocate than the eminent British author, the Right Honorable Sir Gilbert Parker. There is scarcely a month but what his industrious pen may be found defending the cinema in some periodical or other.

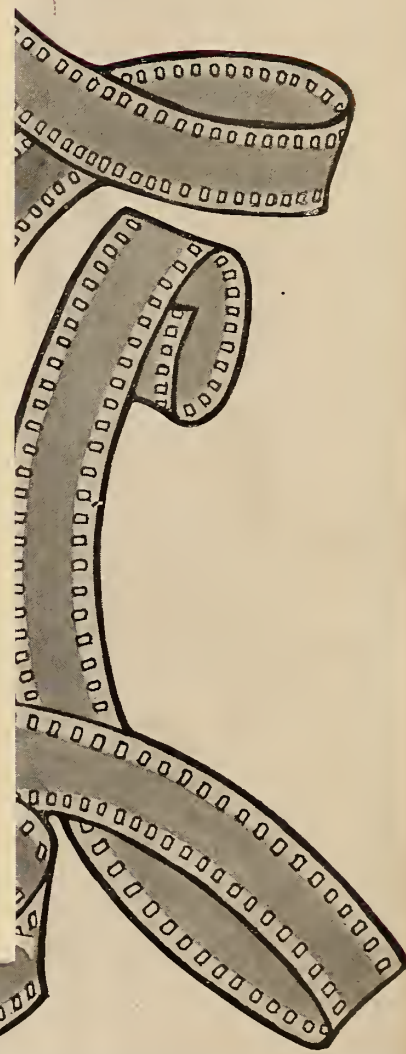
This time his contribution is to be found in *ARTS AND DECORATION* for January, which itself quotes from the *LONDON REFEREE*. The statement of this screen enthusiast herein advanced should produce much complacency on the part of defenders of the motion picture, for if he were allowed his way he would put films into every factory and workshop in the land, as well as into the school and the Sunday-school.

To the objection so often raised that one learns too easily from the motion picture, he replies that one cannot learn too easily, and those who have struggled to inculcate a thirst for learning within the indifferent breasts of the present generation of young America will be inclined to agree with him. Attention to a film, says he, cannot be relaxed for an instant without a loss of the story. This continuous concentration involves considerable application of the mental faculties and its beneficial results cannot be questioned.

There are discouraged souls who be-

ATION

ts • 100 a Year



lieve that the motion picture will supplant the speaking stage and whose sad forebodings are often to be found in the pages of current literature. But the titled gentleman from England declares that theaters of the speaking drama will still flourish and hold their place—not unchallenged, but supreme. The film art does not challenge the stage. It cannot do so. The processes of enjoyment are so different, so opposite. It is a fact, moreover, that a faulty play if transferred to the screen has all its inherent faults accentuated and all its weaknesses made most apparent. It is one art to write for the stage and another art to write for the screen, and never the twain shall be one.

This author declares prophetically that within four years every important writer in the English-speaking world will either write for the film stage or else desire to do so. Although this last statement may appear to some to bear a strong resemblance to what is known as anticlimax, yet to prove that it is not without reasonable foundation he supports it by a formidable list of authors but recently become screen converts.

The British writer is pleased to eulogize our Los Angeles as the world's finest producing center. It is possible, he believes, to find in close proximity to that place any kind of climate and any kind of scenery. If a producer wishes to represent the sad wastes of the Arctic region, let him go to Los Angeles. Should his scenario demand the background of an African desert, he has but to go to California. It is the glittering and versatile Mecca of screendom.

Sir Gilbert Parker is firmly convinced that the motion picture is becoming entitled to the appellation of an art, all unfavorable critics to the contrary. It is true that eighty per cent of film productions may now be below par, but "with a public which in the end always wants the best," and with producers who are sensing that dormant instinct, the time will soon come when the motion picture will enter undisputed into its own.

Menace of Foreign Films Negligible American producers need not fear any invasion of foreign films, if one may pin one's faith to testimony proffered in an article by Beulah Livingstone in the February number of *FILMPLAY JOURNAL*. Acting as the official representative of Constance and Norma Talmadge, she has just completed a journey through England, France, Switzerland and Italy, in the course of which she investigated the status of foreign studios and motion-picture theaters. Her conclusions should be most consoling to those who are patriotically alarmed by the threatened competition with European producers.

That competition, she says, is still a matter of the remote future. Such pictures as *Passion*, *Deception*, *Gypsy Blood* and *The Cabinet of Dr. Caligari*, which have been so superior and which have created such profound respect for the ability of the foreign producer, are the cream of European productions. Very few of their productions can approach the quality of these films. "The regular program pictures of the German theaters are so vastly inferior to our everyday average cinemas that they would be hooted off the screen if an exhibitor were stupid enough to try showing them in the States. The stories are often disgustingly vulgar or lurid and tawdry. The clean domestic dramas, the healthy boy-and-girl love stories which are so dear to Americans, are considered sentimental piffle by our German and French cousins. Their point of view on matters of sex is different."

One French producer is quoted as declaring that despite our Puritan prudery, the mechanical effects and details of our direction, continuity writing and plot construction are so far superior to European productions that American pictures are far more popular than local productions.

In the technique of exhibition, the European theater-owner has much to learn from the American. There has

been practically no attempt abroad to give the picture the advantage of appropriate stage settings, electrical effects, pantomime, or costume prologue. The film has to win on its own merits. With very few exceptions, the foreign theaters have no orchestras to aid in creating the proper atmosphere and in interpreting and intensifying the appeal of the picture.

In all Miss Livingstone's ramblings she never saw a motion-picture theater crowded, nor lines forming before the box-office. Making all due allowance for local conditions which might have caused such circumstances, one would infer that the movie fan is as yet a novel creature in European countries.

American producers, says Miss Livingstone, are establishing studios in picturesque corners of Europe, and American capital and initiative are occupied in exploiting European traditions and backgrounds for cinematic purposes. In England, producers are continually handicapped by the exigencies of climate. Italy, however, furnishes a climate strangely like that of Los Angeles, and is attracting many of our film producers.

* * *

Community Model Visualizes Work of Association An unusual model displayed in the booth of the American Social Hygiene Association at the recent Health Show held in Grand Central Palace, New York City, proved to be a most effective visual aid in getting over the message of the Association—the relation of social hygiene to community effort.

This model, which was the main feature of the booth, consisted of a miniature theater stage representing a community center. The foreground of the stage was occupied by a playground and park, around which were grouped courthouse, city hall, library, etc. Farther in the distance were other buildings, such as churches, school, factories and homes; in the background were foliage and hills. All the work in constructing this complicated little theater, with the exception of

the electrical work, was done by amateurs.

Above the proscenium arch was a "window" through which shone a legend describing briefly the aim of social hygiene. Two smaller windows on either side of the proscenium gave opportunity for further texts setting forth the proper sources for medical, law enforcement, educational and recreational measures. The lighting was so arranged as to illuminate in sequence each text and the buildings which it enumerated. When everything was illuminated, the lights went out for a brief period and the cycle was repeated.

* * *

Yellow for Safety

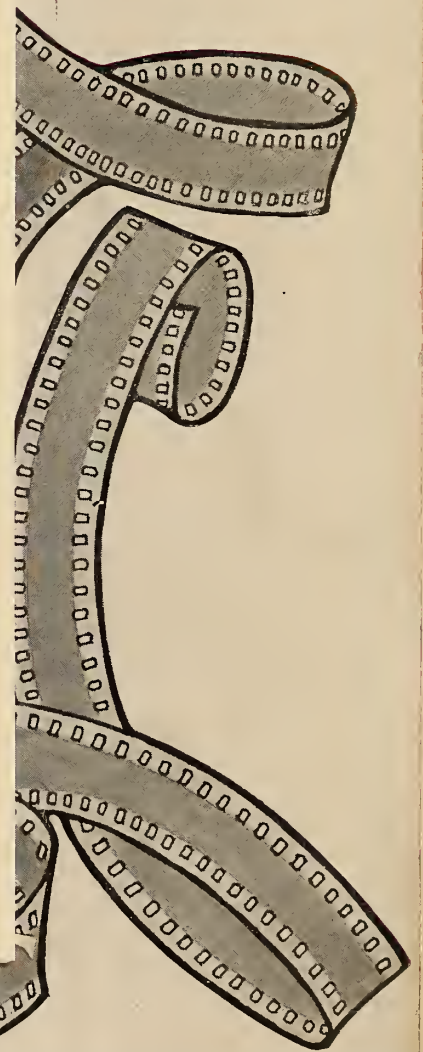
The use of color as a direct preventive of accident, instead of employing it merely as a signal of danger, is a new idea advanced by Louis G. DeArmand, commissioner of public safety of Davenport, Iowa. Red has long been accepted as a warning color, easily suggestive of what *might* happen under certain circumstances. But Mr. DeArmand, in a recent issue of the *NATIONAL SAFETY NEWS*, cites sufficient cases to warrant the belief that the extreme visibility of yellow has actually operated to prevent accidents.

The consensus of excuses for accidents is that the driver did not see, or that he mistook the object for something else as he was driving along. Had he only a few seconds sooner seen the object with which he collided, the accident could have been avoided. "If we grant that accidents are measured in seconds," says Mr. DeArmand, "then we must consider yellow as the safety color."

Most vehicles are painted black, and black blends with the objects in the background—other black vehicles, gray buildings, dark windows and drab-colored streets. Black is everywhere common, and the enormous accident toll with which we are charged indicates that it is not a safe color for the streets. White is vivid and easily seen, but it is not practical for vehicles and street cars. Green and blue blend with the background and are almost entirely lost when

ATION

ts • 100 a Year



in proximity to summer foliage. Yellow is a dashing, daring, noisy color, clearly defined in the distance.

A general test was made in Iowa to determine what bearing the color of the roadway had upon accidents. Macadam paved (white) roads lighted up by an ordinary headlight proved a good background for cats, dogs, rabbits, vehicles and people. Objects on the white road were visible, regardless of their coloring, at a distance from fifty to a hundred yards. On brick roads, upon which a tar preparation had been used to fill the spaces between the bricks, dark objects were difficult to see beyond ten to twenty yards ahead of a motor car, while white objects were visible for only a slightly greater distance ahead of the moving vehicle. Yellow, a bright yellow, was only slightly less visible on the dark brick road than white. Yellow was clearly visible on the white road, and white had a tendency to blend with the white-surfaced macadam. Black on the white road was often mistaken for a shadow.

"One western city reports that fewer accidents occur to, or because of, the yellow street cars than are charged to a line of green street cars," is another item of concrete information which Mr. DeArmand brings to bear upon this interesting subject. "A large eastern railway company some time ago painted the cars on one of its lines a beautiful gray. Accidents immediately increased on this line. The cars were repainted green with yellow outline stripes. White bulletins were used on the forward ends of these street cars. At once accidents took a slump on this line. A man whose firm uses nine trucks for drayage work declares that less accidents were charged to a yellow truck than to the other trucks which are combinations of black, red and blue."

In submitting his data Mr. DeArmand says he hopes to do nothing more than merely "start something." It would certainly appear that he has opened up an important subject for further considera-

tion by those who have to do with public safety.

* * *

Joseph Urban and the Photoplay

The name of Joseph Urban is synonymous with all that is beautifully expressive and progressive in the technique and the art of designing

stage scenery. An article by Olive M. Saylor entitled "Urban, of the Opera, the 'Follies,' and the Films," to be found in a recent number of *SHADOWLAND*, is most interesting in its revelation of the activities and the aspirations of this versatile man of genius.

Although his recent screen affiliations have done much to spread an already wide fame, comparatively few of his many admirers realize the full scope of his activities; for in addition to his responsibilities as production manager of a motion-picture studio, he also has planned for many years the settings for the Metropolitan Opera House and for the "Follies."

Joseph Urban is a remarkable example of a naturalized citizen who has grasped the best of American life and artistic enterprise. It is probable that he understands us better than we understand ourselves, for he has the advantage of a wide, detached viewpoint. Trained as an architect in Vienna, that venerable city of high-lights and shadows, Urban was early attracted to the theater as an ideal medium of artistic expression. Removing to the United States, he designed the scenery for the Boston Opera Company first and later for the Metropolitan and for the "Follies," the latter being an enterprise which many of his friends profess themselves unable to comprehend. Mr. Urban, however, explains himself as follows:

"I do not see why it isn't worth-while to do anything well. I believe you can make your fun and your pleasure and your diversions artistic as well as your more serious plays. In America you have seemed to feel that you must do serious things seriously, but that you can do things meant for pastime very carelessly. That ought not to be so. You ought to

take just as much care in providing your fun as you do your education." Surely an excellent argument and a convincing one.

It is very significant to see a man of his ability and prestige attach himself to the cinematic world, where, as so many enfevered assailants are forever shouting, there is no art and never can be. If it be true, as they say, that art is unknown to the photodrama, it soon will be with a man of such extraordinary creative ability and artistic feeling as Joseph Urban pioneering the way. We can do no better than quote him direct in regard to the situation:

"Of course, we must remember that the art of the photoplay is not yet in existence. Only the motion picture has been born. So far we have borrowed more or less from the stage and have overlooked the fact that spoken words, color, perspective and special relations are missing. We must develop the motion picture as an independent artistic expression, so individual and self-sufficient that we shall not feel the need of what we cannot have. Until this is done, all our painstaking effort is wasted by trying to build on an imperfect foundation.

"In striving to become an art, the motion picture faces a peculiar difficulty. Art has always been aristocratic and exclusive. Each of the other arts has developed slowly and secretly behind closed doors and with only a few to watch and be satisfied. But this new art of the motion picture must be understood not by a few. It must talk the language and express the feelings of millions and it must grow and develop under their curious gaze. On account of these conditions, therefore, the realization of our dreams is likely to be considerably retarded.

"Before we can really advance we must have scenarios composed especially to be interpreted by this new medium of expression. At present, most of the motion-picture studios are limited to the development of dramatic actions written for other purposes than the screen. We have to try to fit these novels and short stories and stage plays to our specialized

conditions instead of doing the only sensible thing—the screening of screen dramas."

In regard to his work in particular, Urban says: "We no longer copy from the magazines. We compose our own actions. We observe the proportion of the moving figure in relation to its surroundings and we have begun to develop one thing which I think is even more important. We compose not only the picture but the movements in that picture. We are slowly trying to develop our own style of expression. It is hard work but extremely interesting, and a wonderful opportunity for an artist who loves to express himself in many channels."

Mr. Urban would like to produce the works of Poe in the same manner as the production of "The Cabinet of Dr. Caligari": to convey the impression of strange moods by the use of abstract rather than realistic backgrounds. And it is true that his work strangely resembles at times the art of this great picture, an art which in its perfection has seldom been approached in this country.

It is indeed our earnest prayer that Mr. Urban and no other will have the opportunity to film Poe. We can imagine how effective "The Red Death," for instance, if he designed the backgrounds. It would be a thing of rare and unearthly beauty, just as the tale itself is imaginatively almost inaccessible except to the appreciative few.

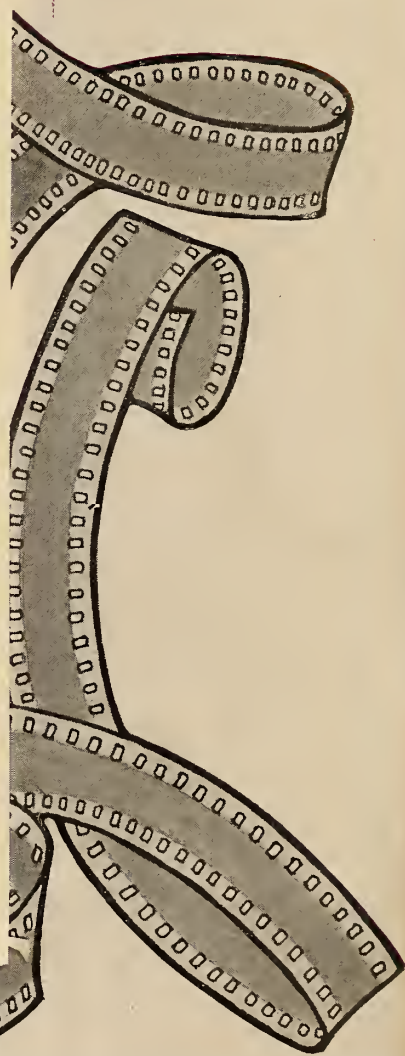
* * *

Wanted: A University Scenario

After two months' futile effort to secure a moving-picture plot for the University of Michigan, the first prize has been increased from \$50 to \$75. To date no suitable scenario has been forthcoming. Whether the difficulty is due to the necessity of harmonizing the story with scenes already filmed, or whether those offered were just naturally below par is not stated—but the fact remains that the University still waits for an acceptable story.

ATION

ts • 100 a Year





"Here are books"-Carlyle

Compton's Pictured Encyclopedia, published by F. E. Compton & Company, Chicago. Guy Stanton Ford, Editor-in-Chief. Eight volumes.

Seldom is it the pleasure of the reviewer to find volumes of such unusual and compelling interest as those which constitute "Compton's Pictured Encyclopedia." Here is a comprehensive and ambitious production whose purpose can be no more clearly stated than in the words of the preface which declare it to be "an encyclopedic, alphabetically arranged survey of the whole field of knowledge, presented with such freshness, vividness and alluringness, and embellished with such a wealth of illustration, that it should be as readable as a story-book, without anywhere sacrificing scholarly completeness or accuracy."

Based upon the belief that the nucleus of a home and school library should be an inspirational work of reference, these volumes, while primarily dedicated to the interests of the youthful mind, are so designed that child and guiding parent or teacher alike may be mutually interested and benefited. Unlike the academic encyclopedia with which the reading public is familiar, information is here presented in such happy guise that one is tempted to read the pages as if they contained a romance. Surely, when pages lay such a substantial feast for the mind before their readers, young and old, and entertain them so delightfully that they are reluctant to depart, the book is functioning as books were intended to function. Such an offering makes most

intelligible the word *browsing* when applied in its literary sense.

No effort has been spared to make the volumes attractive in every way. As the title implies, the picture is utilized to the full as a powerful teaching agency. It is almost impossible to find a page without its illustration; many have three or four. The photographs were culled from a collection of over a half-million, assembled from every source known to international experts in the photographic field; and so expressive are they that frequently their message might easily dispense with supplementing text. Innumerable drawings, photo-diagrams and illustrations in color supply additional aid to the visual appeal of the volumes. Those who believe in the creed of the "eye" will find in these pages abundant evidence of the integrity of their belief.

The clever titles and captions in themselves constitute a pressing invitation to research and study. That ancient land, Egypt, for instance, appears as "The Kingdom of Father Nile"; "Like a Mountain Tumbling Through the Sky" proves to be an inoffensive asteroid, while "Business Life on the Roof of the World" announces the discourse on the country of Tibet. Care is taken to make the discussion fulfill the reasonable expectations created by the titles; like a welcoming hand, the graceful opening paragraph of each article reaches out to beckon the willing reader into the heart of the matter.

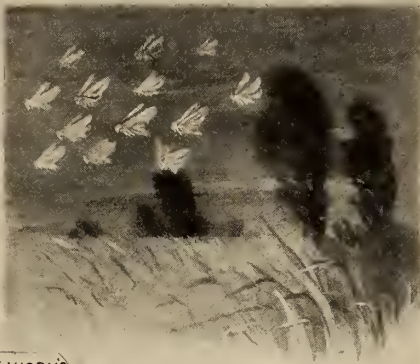
"Here and There" is the felicitous heading for a unique index placed at the

A NIGHT RAID FROM THE AIR



The parent of the army worm is a moth. Like other moths it flies only at night.

AN ILL WIND THAT BLOWS NOBODY GOOD



The worms usually appear in fields, suddenly and in great numbers, and the egg-laying moths are supposed to be carried by winds.

THE ARMY WORMS MESS
WHEAT
(Young and Juicy)
CORN OATS
RYE
ALFALFA
MILLET CLOVER

INFANTRY ON THE MARCH



When the worms have finished one field they crawl away in a body in search of other food.

This man, with the help of a mule and a log, is crushing worms that have fallen into the ditch in their march.

OUR REINFORCEMENTS TO THE RESCUE



In the pupa stage the worm is eaten by birds, chickens, parasitic flies, digger wasps and beetles.

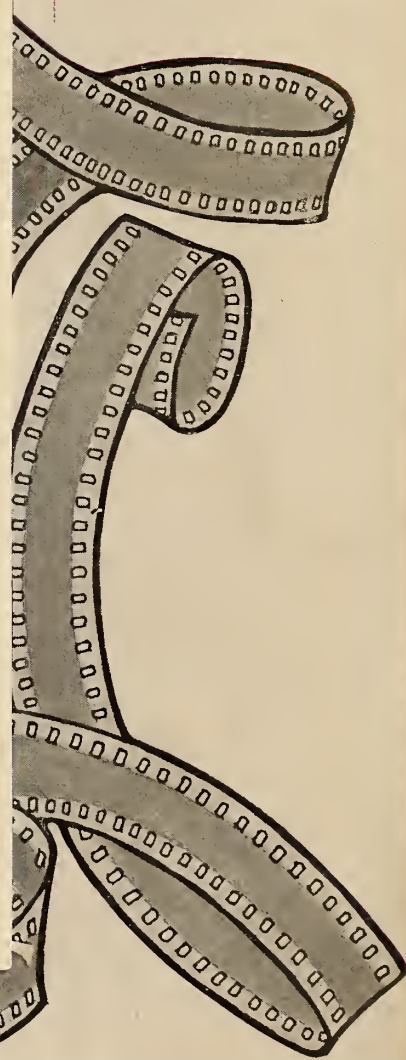
A page that by picture and legend tells more than a whole chapter of text.

beginning of each volume. This index does not attempt to tabulate all the articles, but merely to group according to subject-matter a few of unusual interest, for "odd times when you are just looking for 'something interesting to read.'" Among these group headings are such persuasive titles as "Tales for the Story Hour," "High Lights in History's Pa-

geant," "Some Famous Men and Women," "Rambles Through Factland," "Guide-Posts to Literature, Art and Music"—all sign-posts to varied and interesting reading.

The child rambling at his leisure through the pages will find unexpected and timely help in such articles as "How to Master Fractions" or "What to Eat to

ts • 1⁰⁰ a Year



Build Healthy Bodies." For his more introspective moments there are talks on such matters as emotions, good manners, friendship, ambition—talks planned to inspire and to point the way to the finest use of one's self.

What will undoubtedly prove a most valuable feature of this work is the Easy Reference Fact-Index to be found in the last volume. This index in itself may be used as a handy work of reference. Subjects not treated in the content, names in geography, history, literature, mythology and other fields, are here given place with a few salient facts concerning them. So pithy in content is this index that in many cases it contains sufficient information for the searcher. It is a highly unique and efficient manner of assembling facts.

The reader is continually impressed with the up-to-dateness of the material. All the momentous changes resulting from the World War—changes involving not only boundaries of countries, but the entire social outlook of the nations—are reflected in the modern and progressive treatment of the articles.

One could continue indefinitely to recapitulate the merits of these volumes. It is certain that no child, wandering at ease through the delightful pictured pages, will be able to resist the intellectual onslaught of so many varied and effective appeals, any more than the mature person of critical discernment can fail to recognize and enjoy its scholarly outlook and sound educational value. Such a reference work makes research a joy and an inspiration.

* * *

Motion Pictures for Community Needs,
by Gladys and Henry Bollman. New
York: Henry Holt & Company. Pp.
298.

Lack of familiarity with the motion-picture field acts either as a deterrent or as a heavy handicap to many churches, schools and other institutions that wish to employ pictures in connection with

their work. The problems facing the person who attempts to use films in the non-theatrical field are similar to those facing the motion-picture theater manager and are found to be difficult and awkward of solution.

"Motion Pictures for Community Needs" is designed to supply just such information as the schoolman, the churchman or the community worker will need in order to make a success of his undertaking. As the authors state in the preface, the volume is intended to place in the hands of the non-theatrical exhibitor a key to the showing of motion pictures in such a way that the maximum results may be achieved.

Too often such volumes fail of achieving the definite purpose for which they were created. The co-authors of this book, however, have succeeded in furnishing their readers with much practical aid. Wisely limiting their discussion of the general status of the motion picture to very brief space, they waste no time in getting down to facts.

In the first division may be found an exposition on the various types of films on the market, the outstanding points of present-day production, and the possibilities in the use of government motion pictures. The reader is provided with a long list of commercial exchanges and of the publications devoted to the cause of the cinema. The complications that may arise between the non-theatrical exhibitors and the theater man are taken up, with the purpose of suggesting ways in which desirable co-operation may be brought about.

A complete and thoughtful analysis of the problems facing the novice is to be found in the second part, which offers many useful suggestions as to making pictures pay their own way. One may here discover the most efficient method in which to proceed when selecting, booking and exhibiting films to various types of audiences. Much of the information here presented has been gathered from the actual experiences of many churches

and schools and is therefore not mere theorizing.

Of very real use will be found the one hundred suggested motion-picture programs in the third section. The authors have organized suitable visual entertainment for many occasions and for many different institutions, ranging from the home for the aged to the modern hotel. While it would rarely be possible to obtain precisely the same programs, still they will serve as general working models from which similar ones may be constructed.

In effective conclusion come six chapters dealing with the mechanical and legal aspect of non-theatrical exhibition.

The selection of equipment and its installation and operation are discussed in such manner that those not versed in the technique of projection can readily grasp and apply the content. There is also adequate instruction concerning the care of that grossly mistreated medium—the film. For the convenience of the future purchaser there is a brief description of various projectors now on the market.

Altogether, "Motion Pictures for Community Needs" is a book that should be in the hands of every person concerned with the non-theatrical exhibiting of pictures, so valuable and so well organized is its subject-matter. The volume will be found to fill a long-felt want.

The Picture Hour

The following informal picture-talk is intended to suggest to the teacher various ways in which she can make pictures teach for her and with her. There is no doubt but that a picture with a vital theme can, if properly interpreted, teach as much as, or more than, many pages of textbook information. There are scores of good pictures available for such a purpose that are equal in instructional value to the painting selected as this month's subject.

THERE once lived in France a little girl who loved animals so dearly that she filled her father's home with all that she could find. By and by, when she grew older, she began to paint these animals and was so successful that her pictures are admired the world over. This little girl was Rosa Bonheur, and although she became very famous she always lived very simply in an old home in the wonderful forest of Fontainebleau, where she kept all the animals that she could possibly wish.

This painting, "Oxen Ploughing," certainly shows that Rosa Bonheur understood animals. The fine handsome brutes are pictured with such clearness and such kindness that they look as if they could almost talk. What do you suppose they

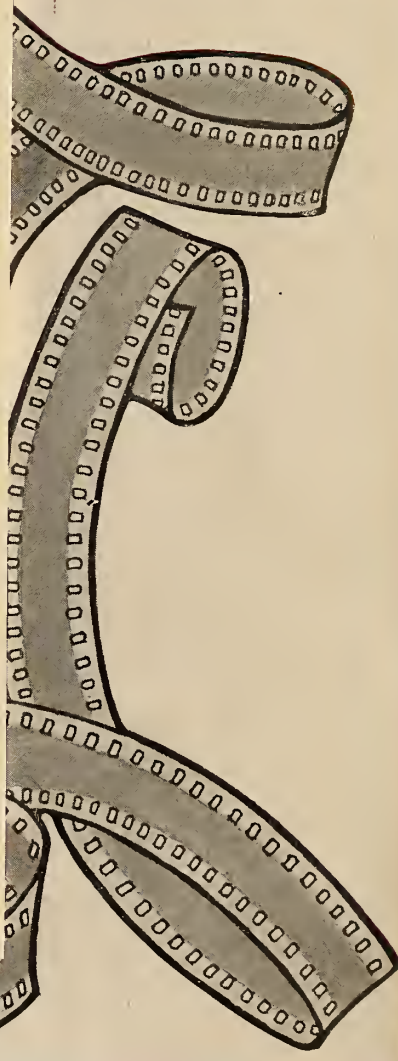
would say if they could speak? Would they complain about their hard lot or would they be patient and friendly?

Notice the queer way in which the pairs of oxen are harnessed to the plough. The grandfathers of these men probably ploughed in just this same way, as did their grandfathers before them. This picture was painted many years ago. Do you suppose that same field is being ploughed in that very same manner today, or is modern machinery being used? Which would you rather be, the driver or the man who is guiding the plough?

This scene is laid in a quaint old French province and the field lies, as you see, in a valley surrounded by low, rolling hills. It is possible that once these hills were very high and the valley much more

ATION

ts • 100 a Year



narrow and deep. If that were true, the rain and the snow must have helped to wear the hills away through the long years. As the hills wore down, what would happen to the narrow valley?

It seems to be a very hot day, for the bright sun is beating down on the over-

see nestling cozily among the trees. There they will have their simple evening meal and probably go to bed shortly after the sun sinks behind the trees. They will be very tired and very hot; but they cannot help having a comfortable feeling about their day's work, for they have been in-



"OXEN PLOUGHING," BY ROSA BONHEUR

Courtesy Abbott's Art Store, Chicago.

turned clods, the men have their collars turned back, and on the horizon there are the sort of clouds that often come on a hot day. Our farmers in the United States sometimes call these clouds "thunder-heads," but there is another much more scientific name for them which you can find in the encyclopedia if you look under the subject of clouds.

After their long day's work is over, these men will go back to the little house which, if you look hard enough, you can

dustrious and have done their bit towards making the best of things. Some one has spoken of the beauty of toil. It may be easier for you to explain just what that phrase means if you study this picture and try to understand all that it is saying.

Can you draw upon your imagination and your knowledge of foreign life to make a picture in writing of how you think this little French farmhouse would look? If so, would you like to send it in for "The Picture Hour" department to print?

CULTIVATE an interest in pictures. It is a part of education always within your reach.

—SIR JOSHUA REYNOLDS.



The Film Field

THE number of "educational films" produced by the professional motion-picture companies is increasing and the quality is steadily improving. A number of such films will be listed each month. Any exchange or producer listed in this department will gladly send full information on his service in general or on any particular film.

In offering these selections, however, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies.

In general, films should be viewed by qualified judges before being shown to school children.

FOR THE GEOGRAPHY LESSON

AND WOMEN MUST WEEP—The first of the Robert C. Bruce series entitled "Wilderness Tales." Using "The Three Fishers" of Charles Kingsley as the dramatic foundation, Bruce has made an unusual sea picture. Seldom have the majesty of the sea and the relentlessness of its waves been more beautifully brought out. (p, Robert C. Bruce; d, Educ. Films Corp.)

MISSING MEN—The second of the series entitled "Wilderness Tales." With a background of stately mountains, a little drama of the wanderings of two men lost in the heedless wilderness is set forth with exquisite pictorial touch. All the various aspects of nature are made vital dramatic aids in the slight narrative. (p, Robert C. Bruce; d, Educ. Films Corp.)

FIRST FAMILIES IN AMERICA—Not the "four hundred," as one might imagine from the title, are pictured here. Instead one is given glimpses of Indian life along the Mexican border. There is something about the primitive methods of the Indian that never fails to arouse interest, and this picture is an unusually clear exposition of this countryside and of its picturesque inhabitants. (p, Burton Holmes; d, Famous Players-Lasky.)

SHIP AHOY—Fascinating water views with glimpses of ships that have felt the

waves of many far-away seas dash against their prows. A picture that awakens the wander-lust. (p, Jack Eaton; d, Goldwyn.)

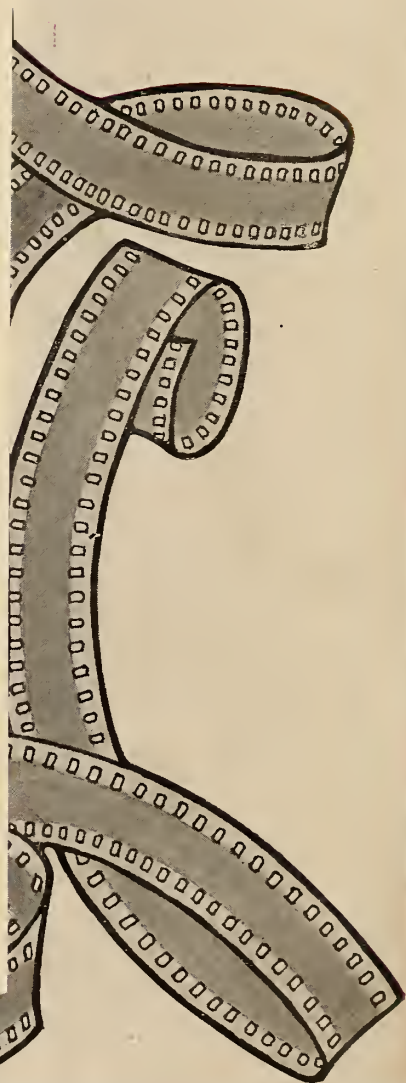
MOVIE CHAT II—From the outraged roar of the falling Niagara River to the dusky Nickajack Cave in Shellmount, Tennessee, is somewhat of a trip. This reel, however, makes it possible for you to travel still farther, bringing you at the end to Washington, where you are allowed to wander from one interesting place to another. (p and d, Kineto Co. of Amer.)

OVER THE ANDES—Some centuries ago Pizzaro crossed the Andes to Peru. The hardships that he and his company underwent are not necessary today, when one can travel with the greatest ease through the eyes of the camera. The reel is varied and many of the snapshots are of great beauty. (p and d, Kineto Co. of Amer.)

DOWN THE YUKON—Just what you would see if you were doing the traveling yourself down this huge stream—people, places, things—all carefully selected and pictured by that super-traveler, Burton Holmes. (p, Burton Holmes; d, Natl. Non-Theat. Motion Pictures, Inc.)

AWAY DULL CARE—The sports of the out-of-doors carefully woven into a theme calculated to arouse wild longing for fresh air and for healthy play. (p and d, Prizma.)

In the brackets following the sketch are given the names of producers and distributors, the producer being indicated by the letter "p" and the distributor by "d." For addresses consult lists in this issue. Always write to the nearest exchange, when given, otherwise to the producer. All entries are 1 reel (1,000 ft.) in length unless otherwise specified.



VISUAL EDUCATION

FILMS ON NATURE STUDY AND OTHER SCIENCES

FACTS AND FANCIES OF OUR GARDEN FLOWERS—The famous Botanical Gardens at Sydney, Australia, are pictured, and in addition many rare and exotic flowers such as the lotus and the orchid. A picture that should appeal to nature lovers. (*p* and *d*, Fox.)

KENTUCKY THOROUGHBREDS—Horse-raising in the blue grass country is the subject of this film. Those familiar with race-track history will enjoy the views of famous thoroughbreds and others will appreciate the beauty of the high steppers. Many breeds of horses are pictured in the footage of this informational reel. (*p* and *d*, Kineto Co. of Amer.)

QUAINT DENIZENS OF THE BRONX ZOO—An unusual combination reel, in the first part of which various members of the eternally publicized monkey family are pictured; the last part of the picture is a Dittmars study of that indefatigable animal, the beaver, drawing a moral from his excellent example. (*p* and *d*, Kineto Co. of Amer.)

WALKING TO HEALTH—A humorous but effective study of the efforts of a fresh-air fiend who compels all his friends at the boarding house, both fat and thin, to join him on his constitutionals. The picture demonstrates that walking is the thing. (*p* and *d*, Natl. Non-Theat. Motion Pictures, Inc.)

CAPTURING LIONS BY AEROPLANE—A unique manner of trapping this king of beasts, thrillingly recorded by the camera. This is one of the Major Jack Allen animal study series. (*p* and *d*, Pathé.)

MAGIC GEMS—A study of the symbolism of gems, showing how ancient beliefs in the magic charms of precious stones led to their use for adornment and how these customs depend to a large extent on their color. (*p* and *d*, Prizma.)

SEEING THE UNSEEN—Produced with the co-operation of the American Museum of Natural History, this picture shows how models are constructed of glass and wax, giving enlargements of two inches of the ocean's bottom, showing the radiolarians and many forms of minute water-life. (*p* and *d*, Prizma.)

BEEES, HOW THEY LIVE AND WORK—This picture relates in detail the life history of the industrious insect, together with methods of removing honey from the comb and apilary and methods of bottling. (*p*, Bureau of Entomology; *d*, U. S. Dept. of Agric.)

FOR THE LITERATURE CLASS

THE BLUE BIRD—This beautiful dramatization of Maeterlinck's drama, done by Maurice Tournier, has been listed before, but its charm is so great that it will always be a picture much in demand. (*p* and *d*, Famous Players-Lasky.) 5 reels.

"GRANDFATHER'S CLOCK"—A pleasant little story of days gone by, built about the old hall clock, with sub-titles from the famous old song, "Grandfather's Clock," by Henry C. Work. (*d*, Kineto Co. of Amer.)

HEY DIDDLE DIDDLE—This is the first of an animated series entitled "The Magic Pen of Mother Goose," in which the favorite characters of nursery rhyme are brought to life on the screen. Children cannot fail to be delighted with the manner in which the dish ran away with the spoon and with the elegant style in which the cow jumped over the moon. (*p* and *d*, Natl. Non-Theat. Motion Pictures, Inc.)

FOR THE CURRENT EVENTS CLASS

PATHE REVIEW 141—Included in the list of subjects in this review may be found a pictorial revelation of the real adventure that is called lumbering; colored views of Mont Blanc; slow-motion pictures of the Himalayan mountain goats, in which their remarkable leaps of fifteen or more feet are analyzed by the camera; and the story of patterns in silk goods. The reel ends with a comparison of nature in country and city. (*p* and *d*, Pathé.)

PATHE REVIEW 145—One may be certain that the contents of these Pathé Reviews will contain material of considerable interest. This reel does not disappoint with its glimpses of a picturesque oasis in the Tunisian desert; a pictorial exposition of a day nursery in New York; familiar landmarks of New York City presented in stills made forty years ago and contrasted with moving picture views of the same places; the undignified yawn slowed up by the camera; and a brief visual account of the Pueblo Indians. (*p* and *d*, Pathé.)

PATHE REVIEW 147—A demonstration of the manner in which a girl employing jiu-jitsu can rout an attacker; Max Bohm, the famous artist, at work out-of-doors; the children of Holland; the Papaya and the banana tree of Florida, and "The Sapphire Cities of Italy," a color study of Northern Italy, are the interesting things to be found in this reel. (*p* and *d*, Pathé.)

OFFICIAL URBAN MOVIE CHAT NO. 4—This film makes many attempts to please and to give variety, with a trip to the bleak city of Riga, the mining and the transportation of coal, views of the death masks owned by Princeton University, a fight between a large hairy spider and a lizard, and a public appeal for the development of our country's resources along constructive lines. (*p*, Kineto; *d*, Hodkinson.)

SELZNICK NEWS NO. 1019—Many varied and interesting events may be found in this reel, such as: German cruiser rescues ships icebound in Baltic; San Francisco, getting circus animals ready to leave winter quarters in California; Emporia, Kans., President Harding's cobbler; Berlin, Germany, first plane in Germany since war; Chicago, pupils of Latin School, hold auto show; London, Lloyd George threatens to quit office; Mt. Rainier, Wash., Selznick cameraman climbs Mt. Rainier. (*p*, Selznick; *d*, Select.)

FOX NEWS NO. 44—Cuxhaven, Germany, ship's crew rescued from ice; St. Cloud, France, girls compete in races for Sir Ernest Shackleton Trophy; Washington, D. C., Hubert Work succeeds Will Hays as Postmaster General; Newark, N. J., new device for sorting mail in a hurry; Chicago, boys' auto show, toy models; Boston, pigeons on the Common; face to face with Japan; pilgrimages to Fujiyama temple; the imperial Military Academy; great image of Buddha, 1,300 years old. (*p* and *d*, Fox.)

INTERNATIONAL NEWS NO. 19—The world's events before your eyes: Sterling, Ill., mid-west town flooded as ice gives away; Natick, R. I., troops guard mills in strike; Los Angeles, auto show; New York City, Babe Ruth signs up again with N. Y. Yankees; Chicago, Judge Landis in his new office; New York City, Secretary Hughes returns from Bermuda; Washington, D. C., Dr. Hubert Work is sworn in as Postmaster General; New York City Shriners in drill; Havana, Cuba, Pres. Zayas and American officers review Cuban troops; Guantanamo Bay, destroys race in storm. (p, Universal.)

FOR THE HISTORY CLASS

THE BATTLE OF JUTLAND—A carefully prepared three-reel picture which shows by means of remarkably vivid animation the entire progress of this titanic encounter in the North Sea. (d, Educ. Film Corp. of Amer.)

IF YOU DESIRE RECREATION

RENT FREE—An innocuous but entertaining film in which a struggling artist impersonated by that box-office winner, Wallace Reid, falls in love with an equally impoverished young writer. After many complications necessary to carry the film through to its successful end, they are of course happily united. (p and d, Famous Players-Lasky.) 5 reels.

THE SKY PILOT—An interesting and rather well done screen version of the novel by Ralph Connor. The western atmosphere will appeal to many, while the fact that it is adapted from this very popular novel will interest others. (p, Catherine Curtis; d, First National.)

SMILIN' THROUGH—A screen dramatization of the play in which Jane Cowl made such an outstanding success. Norma Talmadge has the leading rôle in the picture, which critics declare to be one of the best she has ever made. The National Motion Picture League advises that all subtitles containing profanity be cut. (p, Norma Talmadge Producing Co.; d, First National.) 7 reels.

HOW IT IS DONE

FROM TREE TO PLANK—From tree to plank is a long, long trail in which there are many picturesque steps. This reel shows in detail lumbering as conducted in the states of Oregon and Maine, and is both instructive and edifying. (p and d, Fox.)

FLUFF TO STUFF—The story of cotton has many times been told cinematically, but it is a story of such high educational value that repetition is a virtue, not a crime. This is a reel of unusual clearness and interest. (d, Kineto Co. of Amer.)

HOW CHARCOAL IS MADE—The making of charcoal includes the placing of the debris of the forest into a charring stack, covering it with earth and heavy pine branches, firing it in the center, allowing it to burn for three weeks in order to carbonize, raking it out and loading it for shipment. This picture has the added interest of portraying the industry as carried on in a foreign country. (p, Swedish Biograph; d, Natl. Non-Theat. Motion Pictures, Inc.)

SWEET POTATOES FROM SEED TO STORAGE—The selection of seed potatoes, bedding, pulling of plants, transplanting, cultivation and digging, all done according to approved practices, are effectively presented in this highly informational film. (p, Bureau of Plant Industry; d, United States Dept. of Agric.)

IN CONNECTION WITH THE SERMON

ESTHER—A visualization of the very picturesque and romantic theme of the Jewish captive maid and the powerful king of Persia. (d, Atlas Educ. Film Co.) 3 reels.

THE STORY OF JOSEPH—A foreign picture which carries out satisfactorily the story and spirit of the Bible version. It is a picture that should prove valuable in the Sunday-school in visualizing the events which brought the Jewish nation into contact with the ancient Egyptian civilization. (d, Ira L. Hicks & Co., Inc.) 6 reels.

THE HOLY LAND—Many of the places of historic interest in Jerusalem and its environs which the ambitious traveler would wish to see are pictured effectively in this reel. (p, Swedish Biograph; d, Natl. Non-Theat. Motion Pictures, Inc.)

Reference List of Producers and Distributors

Atlas Educational Film Co.
111 South Blvd., Oak Park, Ill.

Ira L. Hicks & Co., Inc.
804 S. Wabash Ave., Chicago.

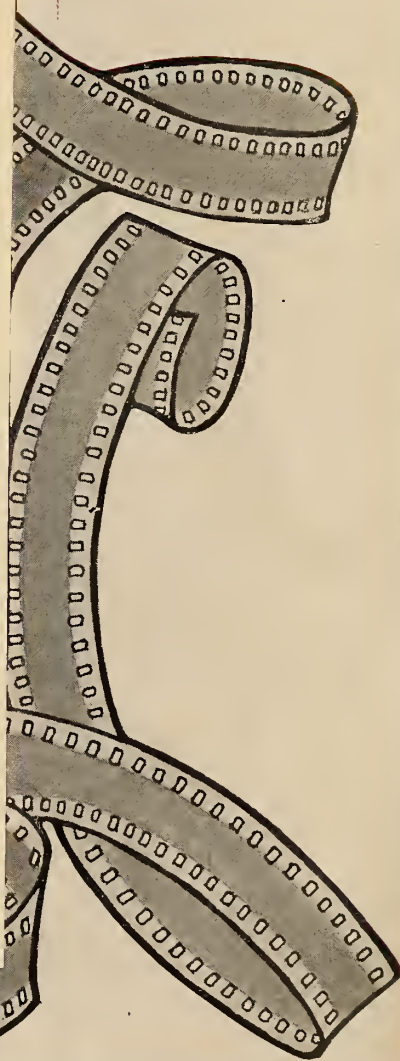
Kineto Co. of America,
71 W. 23rd St., New York City.

National Non-Theatrical Motion Pictures, Inc.
232 W. 38th St., New York City.

U. S. Dept. of Agriculture,
Washington, D. C.

ATION

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

Reference List of Film Exchanges

(Only producers and exchanges whose productions are named in this month's instalment of "The Film Field" are listed on this page.)

Reference List of Film Exchanges

EDUCATIONAL FILMS CORPORATION

Atlanta, Ga.	Louisville, Ky.
Boston, Mass.	Milwaukee, Wis.
Buffalo, N. Y.	Minneapolis, Minn.
Chicago, Ill.	New Haven, Conn.
Cincinnati, Ohio	New Orleans, La.
Cleveland, Ohio	New York City
Dallas, Tex.	Omaha, Nebr.
Denver, Colo.	Philadelphia, Pa.
Des Moines, Ia.	Pittsburgh, Pa.
Detroit, Mich.	St. Louis, Mo.
Indianapolis, Ind.	San Francisco, Calif.
Kansas City, Mo.	Seattle, Wash.
Los Angeles, Calif.	Washington, D. C.

GOLDWYN DISTRIBUTING CORPORATION

Atlanta, Ga.	Minneapolis, Minn.
Boston, Mass.	New Orleans, La.
Chicago, Ill.	New York City, N. Y.
Cincinnati, Ohio	Omaha, Nebr.
Cleveland, Ohio	Philadelphia, Pa.
Dallas, Texas	Pittsburgh, Pa.
Denver, Colo.	St. Louis, Mo.
Detroit, Mich.	Salt Lake City, Utah
Kansas City, Mo.	San Francisco, Calif.
Los Angeles, Calif.	Seattle, Wash.

FAMOUS PLAYERS-LASKY CORP.

Albany, N. Y.	New Orleans, La.
Atlanta, Ga.	New York City
Boston, Mass.	Oklahoma City, Okla.
Buffalo, N. Y.	Omaha, Nebr.
Charlotte, N. C.	Philadelphia, Pa.
Chicago, Ill.	Pittsburgh, Pa.
Cincinnati, Ohio	Portland, Me.
Cleveland, Ohio	Portland, Ore.
Dallas, Tex.	St. Louis, Mo.
Denver, Colo.	Salt Lake City, Utah
Des Moines, Ia.	San Francisco, Calif.
Detroit, Mich.	Seattle, Wash.
Kansas City, Mo.	Washington, D. C.
Los Angeles, Calif.	
Minneapolis, Minn.	
New Haven, Conn.	

W. H. HODKINSON CORPORATION

Albany, N. Y.	Memphis, Tenn.
Atlanta, Ga.	Milwaukee, Wis.
Boston, Mass.	Minneapolis, Minn.
Buffalo, N. Y.	New Orleans, La.
Charlotte, N. C.	New York City, N. Y.
Chicago, Ill.	Oklahoma City, Okla.
Cincinnati, Ohio	Omaha, Nebr.
Cleveland, Ohio	Philadelphia, Pa.
Dallas, Texas	Pittsburgh, Pa.
Denver, Colo.	Portland, Ore.
Des Moines, Ia.	St. Louis, Mo.
Detroit, Mich.	Salt Lake City, Utah
Indianapolis, Ind.	San Francisco, Calif.
Kansas City, Mo.	Seattle, Wash.
Los Angeles, Calif.	Spokane, Wash.
	Washington, D. C.

FIRST NATIONAL EXHIBITORS

Atlanta, Ga.	Minneapolis, Minn.
Boston, Mass.	New Haven, Conn.
Chicago, Ill.	New Orleans, La.
Cleveland, Ohio	New York City, N. Y.
Buffalo, N. Y.	Oklahoma City, Okla.
Dallas, Texas	Omaha, Nebr.
Denver, Colo.	Philadelphia, Pa.
Des Moines, Ia.	Pittsburgh, Pa.
Detroit, Mich.	Richmond, Va.
Indianapolis, Ind.	St. Louis, Mo.
Kansas City, Mo.	Salt Lake City, Utah
Los Angeles, Calif.	San Francisco, Calif.
Louisville, Ky.	Seattle, Wash.
Milwaukee, Wis.	Washington, D. C.

PATHE EXCHANGE, INC.

Albany, N. Y.	Milwaukee, Wis.
Atlanta, Ga.	Minneapolis, Minn.
Boston, Mass.	Newark, N. J.
Buffalo, N. Y.	New Orleans, La.
Charlotte, N. C.	New York City
Chicago, Ill.	Oklahoma City, Okla.
Cincinnati, Ohio	Omaha, Neb.
Cleveland, Ohio	Philadelphia, Pa.
Dallas, Texas	Pittsburgh, Pa.
Denver, Colo.	St. Louis, Mo.
Des Moines, Iowa	Salt Lake City, Utah
Detroit, Mich.	San Francisco, Calif.
Indianapolis, Ind.	Seattle, Wash.
Kansas City, Mo.	Washington, D. C.

FOX FILM CORPORATION

Albany, N. Y.	Kansas City, Mo.
Atlanta, Ga.	Minneapolis, Minn.
Boston, Mass.	New Orleans, La.
Buffalo, N. Y.	New York City, N. Y.
Butte, Mont.	Oklahoma City, Okla.
Chicago, Ill.	Omaha, Nebr.
Cincinnati, Ohio	Philadelphia, Pa.
Cleveland, Ohio	Pittsburgh, Pa.
Dallas, Tex.	Salt Lake City, Utah
Denver, Colo.	San Francisco, Calif.
Detroit, Mich.	Seattle, Wash.
Indianapolis, Ind.	St. Louis, Mo.
	Washington, D. C.

PRIZMA

Baltimore, Md. Federated Film Exchange, 412 East Baltimore St.

Boston, Mass. Motion Pictures Distributing Corp., 214 Elliot St.

Chicago, Ill. Celebrated Players Film Corp., 207 South Wabash Av.

Cincinnati, Ohio. Standard Film Service Co., Film Bldg., Seventh and Main Sts.

Cleveland, Ohio. Standard Film Service Co., Sloan Bldg.

Dallas, Tex. Specialty Film Co., 107 South St. Paul St.

Denver, Colo. Supreme Photoplays Co., 1446 Welton St.

Detroit, Mich. Standard Film Service Co.,
Film Bldg., Elizabeth St.
Kansas City, Mo. Standard Film Corp.,
12 East 17th St.
Milwaukee, Wis. Mid-West Distributing
Co., Toy Bldg.
New Orleans, La. Creole Enterprises,
1401 Tulane Ave.
New York, N. Y. Commonwealth Film Corp.,
729 Seventh Av.
Philadelphia, Pa. Masterpiece Film Attrac-
tions, 1329 Vine St.
San Francisco, Calif. Co-operative Film
Exchange, 107 Golden Gate Av.
St. Louis, Mo. Skouras Bros. Enterprises.

SELECT PICTURES CORPORATION

Albany, N. Y.
Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Tex.
Denver, Colo.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Calif.
Milwaukee, Wis.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York City, N. Y.
Oklahoma City, Okla.
Omaha, Nebr.
Philadelphia, Pa.
Pittsburgh, Pa.
Portland, Me.
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
Washington, D. C.

The Future of the Serial

(Continued from page 200)

a silver screen—a trained operator—and appropriate music. What could be simpler? What could be a more promising time for giving great literature a more satisfactory visualization than it has had in the past?

In a later article "L. C. M." quotes Harry M. Berman, manager of the Universal Exchanges, as follows:

"Universal is going to startle the film world with its future serial policy. We are making serials that are so different from all serials that have gone before, that we are even tending to get away from the name, 'serial.' Our new chaptered product, 'Winners of the West,' really is a continued feature. We are making 'Winners of the West' so that every censor and every parent will have to say: 'I see no harm in showing this to children. It is history, and will teach them a lesson while it thrills and amuses them. . . . We have selected one of the most romantic and thrilling stories of the New World—the adventures and exploits of Captain John C. Fremont, whose expeditions across the Rockies were largely responsible for the early acquisition of the West Coast.'"

Then follows an announcement re-

garding the next super-serial or *chaptered film*. This will be Henry M. Stanley's search for Dr. Livingstone in Africa—with a love-story injected into its veins. The historical facts are said to be followed closely.

Universal may win the great distinction of rescuing the "serial" from the penny-dreadful circle and placing it among the élite. *If* it follows the facts. It can easily convince the serious public of this by submitting the scenario to a recognized historical authority like Turner in the case of the Fremont series, and a geographical authority like Goode in the case of the Stanley series, and printing their indorsements along with the advertising matter. Such a serial could make its way into the universities and the high schools and develop a new clientèle.

It is only a step from the chaptered geographical or historical film to the chaptered literary film, to producing our great masterpieces with a wealth of fidelity and detail hitherto unattained, and in weekly sections of suitable reel lengths.

Who will be the first producer to give us "Dombey and Son" in twenty episodes, or "Felix Holt" in ten?

The Motion Picture—Yesterday and Today

(Continued from page 209)

tion, Edison's agents cornered the English market on films, making it impossible for Paul as well as his purchasers to utilize their machines. Confronted with this awkward situation, which would have daunted one of less resource, Paul himself began to manufacture film.

So far-reaching was his vision that he saw the new scheme would not long be profitable unless a number of persons could view the film at the same time. His first contrivance built for the purpose of projection was a special lantern through which the film was run continuously; but to prevent blurring it was necessary to have the shutter revolve so rapidly that it was impossible for sufficient light to be passed through each picture in the short period of time during which the shutter was open, causing the image projected upon the screen to be faint and ill-defined. He then realized that it was essential to secure intermittent motion so that the film would move when the shutter was closed and remain at rest during the brief second in which the light passed through.

In February, 1896, Paul was so far successful as to be able to make his first public demonstration with a machine which was ultimately labeled the "Animatograph." Later in the month his pictures were shown in the library of the Royal Institution—a significant occurrence, indicative of the great interest which all circles were taking in this new thing. The subjects of the film—a shoeblack at work in a London street and a rough sea at Dover—have

come down to us as a part of film history.

The First "Movie" Theater

The proprietor of the Olympia, a London amusement house, was keen enough to foresee the prosperous future awaiting this new form of entertainment. Accordingly, he secured Paul's machine and his services as an operator. This is said to be the first place of amusement where the projection of the motion picture constituted the exclusive entertainment; consequently, the first "movie show."

And the public liked the motion picture even from the very beginning!

Here, as in other cases, there is some difficulty in determining just to what degree posterity is indebted to the efforts of Paul. Lubschez in his book declares that Paul was merely an imitator and has received undeserved glory.¹

Evolution of the Lumiere Machine

Meanwhile, in France, a man by the name of Lumière, unaware of what Paul was accomplishing across the Channel, was engaged in producing a machine very similar to that of his English competitor. According to some authorities he forestalled Paul by several months in exhibiting his machine, which is stated to have been infinitely more scientific than that of his rival. Like Paul, he succeeded in securing the intermittent movement, al-

¹"The Story of the Motion Picture," by B. J. Lubschez: Reeland Publishing Co. The descriptions of the Phenakistoscope of Plateau and the Kinematoscope of Dr. Sellers, quoted on pages 129 and 169, respectively, of the March issue of VISUAL EDUCATION, are likewise from this interesting source.

(Continued on page 244)

SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics and Health and Sanitation are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

*Each title is a single reel unless otherwise indicated.
All films are printed on non-inflammable stock, standard width.*

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Representative Democracy in the United States
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands

Nature Study

Where Plants Live
The Monarch Butterfly
Samia Cecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

**For prices and other details regarding SCHOOLFILMS
write direct to headquarters**

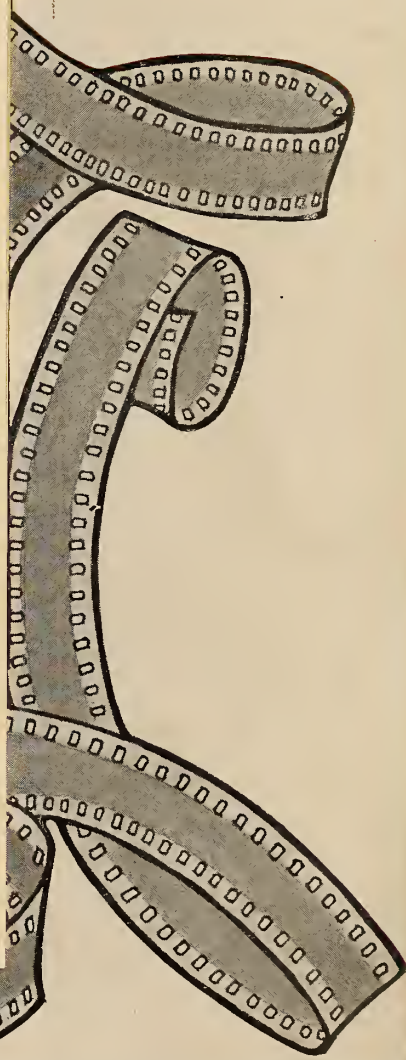
The Society for Visual Education, Inc.

806 Washington Blvd., Chicago

220 W. 42nd St., New York

ATION

ts • 100 a Year

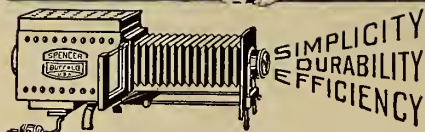
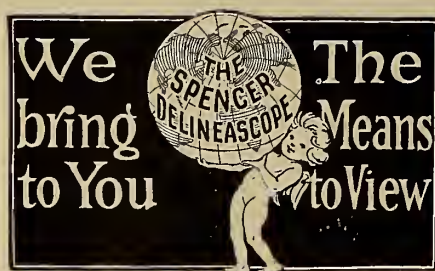


THIS ISSUE: **Playing the Health Game**

ADVERTISEMENTS

FILMS

FILMS FOR RENT—Suitable for school, church and social uplift societies. One dollar per reel. Write for list. Sanor Film Company, Kankakee, Illinois.

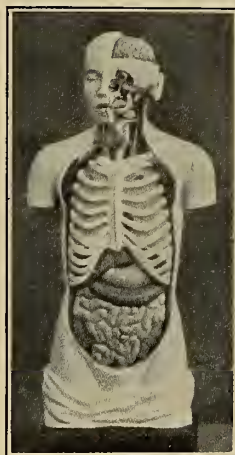


FOR projection of lantern slides in the school, lodge, church, family circle; no place too small or too large for

SPENCER DELINEASCOPE

It's as far ahead of the old Stereopticon as the Automobile is of the wheelbarrow. Five models. Prices from \$25.00 to \$185.00. Send for illustrated folder.

SPENCER LENS COMPANY, Buffalo, N.Y.



K14

Anatomical Models

Send for special circulars and catalog. We carry the largest stock of Anatomical Models and Charts in America.

Denoyer-Geppert Co.,
5235-5257 Ravenswood Ave., Chicago

Please send me catalog and further particulars on your Models and Charts.

Name

Institution

V. B 4-22

THE MOTION PICTURE—YESTERDAY AND TODAY

(Continued from page 242)

though in the beginning he used only one perforation on the side of each picture.

He made an earnest effort to remove the constant fire menace by placing a spherical bottle filled with water between the electric arc and the lens to act as a condenser, in much the manner of the condenser of today. Edison also had appreciated the danger of fire and had introduced a bulb containing alum water between the electric lamp and the film as a heat absorber.

Lumière's machine was introduced into the United States in 1896, at a time when screen projection was a thing unheard of, and laid a substantial foundation for the coming activity in this country.

Inventions Multiply

This was a time of intense activity among inventors, and moving picture machines too varied and too numerous to mention were patented in England, France and Germany. In this last country, for instance, Max Skladanowsky, sometimes called the German Lumière, obtained in 1895 a patent on a machine somewhat similar to Jenkins' Phantoscope. Most of these machines failed of their purpose and need not be reckoned with.

But the fundamentals of projection had been achieved, and all that remained to be done was to perfect the mechanical devices which were to open up a new and unbelievable world of recreation and education.

New Perspectives in Nurse's Vocation

(Continued from page 212)

Louis and other large cities, to promote and maintain high educational standards for the training of nurses and to disseminate information concerning the achievements and possibilities of the nursing profession and the need of really adequate training.

A Specialized Vocation

Of recent years many nursing occupations have taken on a "welfare" aspect; or perhaps it would be more accurate to say that welfare work has required the nurse's training. This fact alone accounts for the astounding broadening-out of the nursing profession. Originally comprising only two or three branches—chiefly hospital and bedside nursing—it now embraces in its scope thirty or more different and distinct lines of work. Such departments as school, visiting and industrial nursing, infant welfare, and county and rural nursing, call for a very high class of womanhood, and give play to talents which the old-time nurse never dreamed of developing. In addition to private and hospital nursing at home and abroad, one trained for this work may teach, devoting her whole time to instructing pupil-nurses in the essentials and laying a foundation in the sciences which make for good, intelligent service. She may be a dietitian, a teacher of occupational therapy, a laboratory assistant or an anaesthetist. She may hold an executive position as head of a hospital or training school. All of these ramifications and specializations of the work are being presented to possible recruits to the serv-

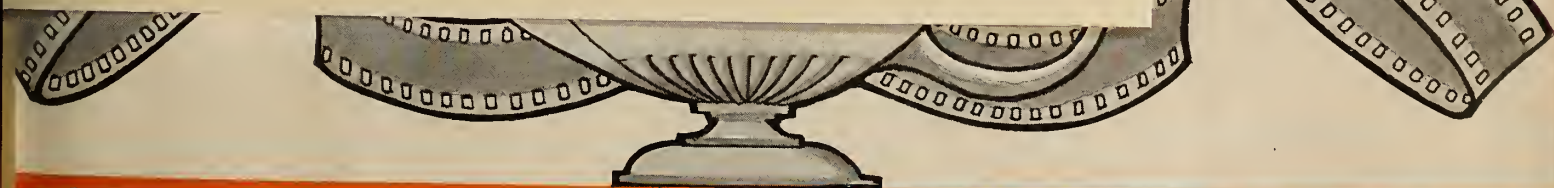
ice by means of well-selected visual materials.

According to the Central Council for Nursing Education, the demands for young women suitably equipped for such lucrative positions are constantly increasing. It is, therefore, a part of the activities of the Council to direct girls who possess the proper qualifications for such work to schools which afford thorough training in these departments of service. It is an interesting fact that the nurses' schools of today are taking on more of the college atmosphere than they had in the past, and that more thought is given to protecting the interests of the student-nurses and providing suitable social and recreational facilities. In many cases the schools are affiliated with the best colleges and universities in the country. There the student-nurse takes her theoretical and laboratory work and her course in nursing constitutes a credit toward her bachelor's degree.

What Vocational Guidance May Accomplish

With women acknowledged as an increasingly important factor in the world's work, it has become an obligation on the part of our schools to give girls as well as boys as much advance information as possible which may help them in making their choice of vocation. Such a choice involves far more than merely earning a living. It involves the selection of work that will not only be lucrative, but that will enable them to secure happiness and true personal development through processes and duties which those without vision are prone to regard as humdrum routine.

ts • 100 a Year



THIS ISSUE: *Playing the Health Game*

Of Interest to Visualists

Map People in New Quarters

The Denoyer-Geppert Company, scientific school map-makers, has just purchased in the attractive Ravenswood manufacturing district on Chicago's north side, a block-long building whose three stories, with their 50,000 square feet of space, will permit of concentrating all its various departments—map-making, map-mounting, and anatomical model-making—under one roof.

In expressing appreciation to its thousands of school friends whose support has made this new home possible, the company extends also a cordial invitation to school people, local and out-of-town, to visit the interesting new plant and study visual teaching materials in-the-making. The plant will be "at home" after the first of May at 5235-5257 East Ravenswood Avenue.

* * *

Bringing Dante Up-to-Date

An interesting item comes to hand, through the Jawitz Pictures Cor-

poration, concerning an attack recently made on Dante by the New York psychoanalyst, Walter Arensberg, who accuses the author of the "Divine Comedy" of "hidden utterances of passion behind the lines" of his immortal work. In view of the ultra-modernity of the Freudian theory, such a criticism certainly has the effect of bringing down to the minute a classic that is now over six hundred years old. It would be interesting indeed to hear what the great Florentine would say to this modern slant on the influence exerted over him by the beloved Beatrice.

The current appearance of "The Inferno" in motion picture form is certain not only to stimulate this interest, but to leave the decision to a larger class than scientists and psychoanalysts. The visual version of Dante's masterpiece may help both his admirers and his detractors to answer the question as to whether he really does betray himself "between the lines."

TO CROWN all, the school must use the moving picture machine as a means to the reproduction of what is most beautiful in motion, whether in nature, the drama, or everyday life. Architecture in a natural and human setting that makes it a thing alive, waves breaking upon a far-off shore, a mountain covered with a forest of rustling leaves, a minaretted mosque with its white-robed worshippers, a scene from Rip Van Winkle or Oberammergau, unite to make it a veritable kaleidoscope of art. When, for the love of amusement and art, the very nation is beginning to go to school, the school through formal instruction should play its part.—DR. A. DUNCAN YOCUM, "CULTURE, DISCIPLINE AND DEMOCRACY."



SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

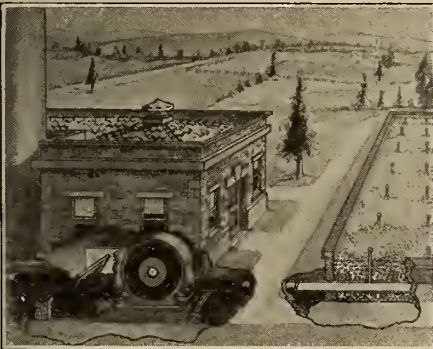
The
Industrial Film Division
of the
Society for Visual Education
specializes in the production of high-class films for
Sales Promotion Propaganda
Advertising Welfare
Instructional Purposes

Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.

We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

INDUSTRIAL FILM DIVISION
SOCIETY FOR VISUAL EDUCATION, Inc.
806 W. Washington Blvd., Chicago



TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA

ATION

ts • 100 a Year

French with its Importance, Prestige and Universality, stands today as a sign of Thorough Education and Refined Culture.

LE FRANÇAIS POUR TOUS

Subscription \$2.50 per year.
35c per copy.

The only French magazine published entirely in French in the United States of America.

ESPECIALLY ADAPTED FOR THE
TEACHER AND STUDENT
OF FRENCH.

LE FRANÇAIS POUR TOUS

Published under the auspices of the Alliance Française of Detroit, in order to bring about a better understanding between the United States and France, and to provide the American French teacher, French student, and all lovers of French with the best available French reading matter at a nominal cost.

Le Français Pour Tous

offers monthly the best French

<i>Short stories</i>	<i>Novels</i>
<i>Serials</i>	<i>Travels</i>
<i>Anecdotes</i>	<i>Cartoons</i>
<i>Illustrations</i>	<i>Hints for the</i>
<i>Cooking recipes</i>	<i>French Students</i>
<i>Jokes</i>	<i>Actualities</i>

*French puzzles and contests
with prizes*

Articles of especial interest to teachers and students of French contributed by prominent Professors of American Universities.

In each issue one of the most popular French songs published with words and music.

LE FRANÇAIS POUR TOUS PUBLISHING CO.

131 Junior College Bldg.
Cass, Warren and Hancock Aves.
Detroit, Michigan

Correct English—How to Use It

JOSEPHINE TURCK BAKER, Editor

A MONTHLY MAGAZINE—\$2.50 THE YEAR

Send 10 Cents for Sample Copy to

Correct English Publishing Company, Evanston, Illinois



DANTE'S "INFERNO"

(The Divine Comedy)

The immortal conception of the Inferno by this immortal author is beyond doubt one of the most inspired and imaginative masterpieces ever conceived. Its picturization brings to the moving picture industry the visual classic beyond compare.

Non-theatrical exchanges and educational institutions can obtain copies or territorial rights by communicating with

JAWITZ PICTURES CORP., 729 Seventh Ave., New York

CLASSIFIED ADVERTISING

AGENTS AND SALESMEN

\$100 weekly possible through our exclusive representative plan. Fastest selling Ford accessory on market. "Masco" Splash Fender for front of Ford car eliminates rattling of front fenders, prevents radiator, lights and front of car from becoming mud-splashed, induces greater volume of air into radiator, reflects lamp's rays onto road in night driving, and beautifies lines of car, putting Ford car into higher-priced class. The Ford car being the only car without a splash pan protection, every owner wants this essential attachment. Any one can attach fender in few minutes. Retail at \$6.50. Send \$4.00 for agent's sample and contract application for territorial rights. Give references. Mayer Auto Accessories Corporation, Manufacturers, 333-335 Washington St., Buffalo, N. Y.

FOR SALE—SLIDES

SLIDES—SLIDES—SLIDES—SLIDES—MADE FROM anything and everything. S. Leon & Bro., Makers of Hi-Art Durable Lantern Slides for every purpose. 207 West 48th Street, New York.

Printing
and
Advertising
Advisers



*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

Day and Night
Service
All the Year
Around

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed it is our opinion you have not done your duty by your institution or yourself until you have learned about the service Printing Products Corporation gives and have secured prices.

*We ship or express to any point
or mail direct from Chicago*

Make a Printing Connection with a Specialist and a Large and Reliable Printing House.

You Secure From Us

Proper Quality—Quick Delivery—Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of "Visual Education"
what they think of our service and prices.*

PRINTING PRODUCTS CORPORATION

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

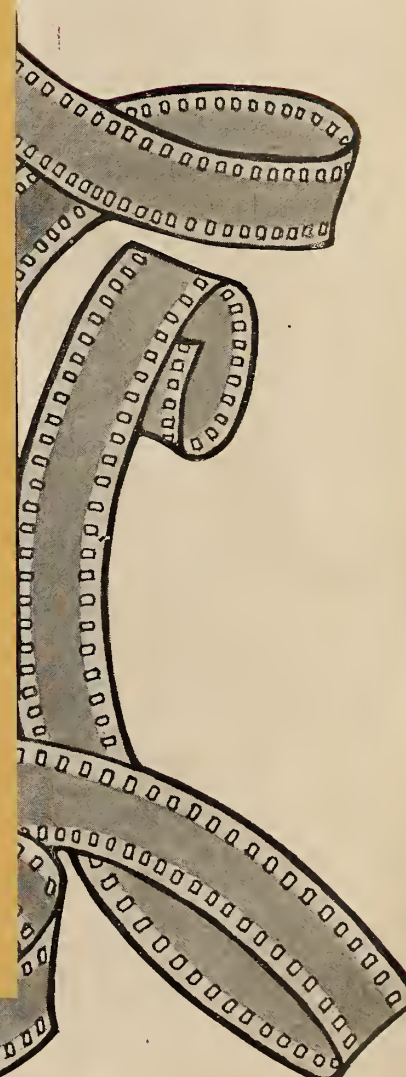
Artists—Engravers—Electrotypers
English and Foreign Languages

Polk & La Salle Streets

CHICAGO, ILL.

TELEPHONE
Wabash 3380
Local and Long Distance

IF YOU SAW IT HERE, PLEASE SAY .SO



EASTMAN SAFETY FILM

for Portable Projection

The words "Eastman" "Kodak"
"Safety" "Film" stenciled in *black
letters* in the film margin at ten
inch intervals mean precisely what
they say. The film is safe.

*Furnished in two widths, $1\frac{3}{8}$
inches, and $1\frac{1}{10}$ inches—Eastman
perforation.*

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

VISUAL EDUCATION

MAY 1922

15cts • 1⁰⁰ a Year



THIS ISSUE: *Playing the Health Game*



© K. V. Co.

BUFFALO, YELLOWSTONE PARK

*Interest
Your
Pupils*

*In Spite of
Spring's
Distractions*

THE KEYSTONE SYSTEM FOR VISUAL EDUCATION WILL HELP YOU

600 stereographs—bi-nocular photographs showing depth, distance, perspective—used a few each day, make the lesson enjoyable.

600 lantern slides, duplicating the stereographs, furnish review material.

Slides and Stereographs arranged in convenient cabinets.

A Teacher's Guide, fully indexed and cross-referenced, points out several thousand classroom uses.

Write for classroom demonstration.

KEYSTONE VIEW COMPANY, Inc.

*"Originators of Systematized
Visual Education"*

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*

Visual Education

A MAGAZINE DEVOTED
TO THE BUSINESS OF
AMERICAN EDUCATION

Rollin D. Salisbury, President
Forest R. Moulton, Secretary

Harley L. Clarke, Vice-President
Wyndham Phinny, Adv. Manager

H. G. Bullock, Business Manager

William Chandler Bagley, Chief Editorial Writer
L. M. Belfield, Managing Editor



Subscription - - - \$1.00 a Year
Foreign Countries - - - \$1.50
Single Copies - - - 15 Cents
Back Numbers - - - 25 Cents

VOLUME 3

MAY 1922

NUMBER 5

In This Number:

A LITTLE TALK WITH READERS.....	251
YELLOWSTONE'S GOLDEN ANNIVERSARY..... <i>A. E. Demaray</i>	253
PLAYING THE HEALTH GAME..... <i>Grace T. Hallock</i>	254
TEN THOUSAND DOLLARS GRANTED FOR RESEARCH IN VISUAL EDUCATION.....	257
Y. W. C. A. MAKES FILM FOR BUDGET DRIVE.....	257
THE MOTION PICTURE—YESTERDAY AND TODAY (Part III)..... <i>Mary McKenzie French</i>	258
HOW THE MOVING PICTURE TELLS THE STORY OF SAMIA CECROPIA—THE GIANT AMERICAN SILKWORM.....	260
THE WORD AND THE PICTURE IN HUMAN EVOLUTION..... <i>William Chandler Bagley</i>	261
VISUAL ACTIVITIES THE WORLD OVER.....	262
PROJECTION QUERIES AND ANSWERS..... <i>F. R. Moulton</i>	263
FOR BOYS AND GIRLS..... "The Silent Call"—The Story Retold for Children A Picture-Reading Contest Boy Scouts and Their "All-Outdoors" Exhibit The Picture Hour (St. Gaudens' "Lincoln")	266
AT THE SIGN OF THE QUESTION-MARK..... Darkening the Schoolroom for Motion Pictures Slides to Correlate with Hygiene Teaching Proper Lens for 60-foot Throw When Your Film Breaks During the Showing Film Comedies on School Programs	273
THE FILMS IN REVIEW..... <i>Cardigan—A Doll's House—Smilin' Through</i>	274
KEEPING ABREAST OF THE SCREEN..... Brief Comments on Current Films for the Special Information of Parents and Teachers	277
THE FILM FIELD.....	278

Copyright 1922, by the SOCIETY FOR VISUAL EDUCATION, Inc., Chicago

FORECAST FOR JUNE

Visual Education on Wheels

The traveling Educational Museum of the St. Louis schools. Nowhere is the visual method being applied more intensively or successfully.

Radio Broadcasting

An illustrated, simply-told story of what happens at the broadcasting station when music and speeches are flashed through space.

An Interview with Jane Addams on "The Movie Problem"

The creator of Hull House discusses helpfully a question that is exercising many minds today.

Stay-in-School Arguments

A page of slides picturing the vocational training a modern high school offers. Such "opportunity slides" are showing Chicago eighth-graders that it will pay to enter high school.

Glacier National Park

Another of Mr. Demaray's articles, with choice pictures from the Government's own files.

Vitalized Agriculture

Edgar W. Cooley writes of the new visual methods of teaching farming in rural schools.

The Modern Moving Picture Studio

The fourth installment of the series on "The Motion Picture—Yesterday and Today."

What to Look for Out-of-Doors in June

An "observation chart" listing visual lessons that Mother Nature will teach you this month if you know where to look.

Published monthly by the Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 West 42nd Street, New York

We Give Portable Projectors

FREE

TO

SCHOOLS, CLUBS, CHURCHES AND INSTITUTIONS

VISUAL EDUCATION has developed a plan which will enable any school, club, church or institution to have a splendid motion picture projector of its own.

MOST PERFECT PROJECTORS MADE

The projectors we are giving are the finest made. They are complete with motor, instantaneous focus and all the other latest improvements, and the mechanism and controls are so simple that anyone can operate one.

SEND FOR BOOKLET AND TERMS OF OUR OFFER

Send at once for illustrated booklet describing our projectors, and for full details of our free offer.

VISUAL EDUCATION
806 W. Washington Boulevard
CHICAGO ILLINOIS

VISUAL EDUCATION
Projector Department

806 W. Washington Boulevard
Chicago

Please send me illustrated booklet describing the projectors and details of your plan whereby we can obtain one free.

Name.....

Street No.....

Town.....State.....

DO YOU OFFER

your students

Vocational Guidance

or

Do your students find what work they are best suited for by experience—the slow and painful teacher?

Do they try all the things they are **not** cut out to do to find the one that was intended for them?

Natural tendencies, strong points, likes and dislikes, can be read from the physical form and color. This is Morphological Character Analysis. With the knowledge of peculiar natural qualities of the child, careful directions for vocational guidance can be given. Success can be attained along the line of least resistance.

How would you like to read answers to these questions:

1. "Where do I fit in?"
2. "How to read character at a glance?"
3. "How to decide my vocation?"
4. "Which is my line of least resistance to success?"

These questions will be answered—and many more—in a series of articles in **THE BUSINESS PHILOSOPHER**. The first appears in the May issue.

You may have a free copy of the May number—no cost or obligation—just send a card for your copy.

Address

The Business Philosopher

Monroe Ave. and Second St.

Memphis, Tennessee

A Little Talk with Readers

IN THIS, the fifth number of its third volume, **VISUAL EDUCATION** does more than simply enlarge the size of its page. That mechanical expansion is but a symbol of a more far-reaching expansion—an expansion of purpose and plan.

It is launching forth upon a campaign to extend in a large way the body of its readers, and it believes it can best accomplish this by broadening its scope and multiplying its appeals.

There is a day ahead when a magazine dealing seriously with the screen in all its varied phases—a magazine of purpose and ideals—will be needed and wanted and used by a million American readers instead of just a few thousands as today. **VISUAL EDUCATION** takes up the inspiring work of making itself necessary to that great reader-family.

To the educational field this magazine continues the direct service it began with its first issue. It will as before provide immediate practical helps to those who believe that we should teach through the eye more than we have been doing in the past; it will serve as a clearing-house for teaching plans and experiences, and as a journal where both scientific research and less formal experiment may be put on record; it will furnish readable digests of the literature of visual education, and report on what is being done the world over in applying visual aids to the high purposes of education.

But this magazine feels very strongly that its family of readers ought not to be confined to the ranks of educators. Everywhere today fathers and mothers are awakening to the tremendous part the screen is playing in moulding the plastic minds and characters of boys and girls. They are beginning to sense the bigness of the problem that confronts them in the theatrical screen of today—and, no less, the bigness of the opportunity that is offered to them and their children in the steadily growing importance of the educational screen.

More and more we are coming to understand that, in order to deal adequately with this problem of the recreational film, we need to be familiar not only with the broad aspects of the question, but with its constantly changing details. Unless we make it our business to "keep posted" on the current offerings of the screen, how shall we determine what is wholesome and worthwhile, and what is degrading and time-

wasting, in the bewildering variety of new wares, all so alluringly advertised?

More particularly is this the task of the American mother. For it is upon her, in the main, that the duty of playing family movie censor falls. After one or two unfortunate mistakes in judgment, the average mother is ready to admit that it is decidedly up to her to know beforehand whether she is steering her little band aright.

Advancing civilization has imposed upon her a new responsibility. She may like it or not—but there it is. And surely, if she has cheerfully devoted years to training her boys and girls in right thinking and acting, she deems it well worth her while now to give a little time to "keeping posted," if that will prevent a careless screen from destroying the structure built up through years of love and watchfulness.

For that matter, even the ordinary picture-goer without family responsibilities likes to know "what is what" before he deliberately strikes two hours from the week's narrow margin for recreation and invests it at the movie theater. It is, therefore, with the idea of co-operating with parents and others who will be served by a discriminating film guide that **VISUAL EDUCATION** is adding as a regular feature of its "Film Review" department a page of snapshot criticisms of current pictures.

The editorials of Dr. William Chandler Bagley of Columbia University, one of our national authorities on educational method, will be planned to interest a wide audience of parents and teachers. "Projection Queries and Answers," conducted by Dr. F. R. Moulton of the University of Chicago, will continue to provide a medium for dealing helpfully with the specific problems of projection. The new page, "At the Sign of the Question Mark," will give readers an opportunity to submit queries of general interest on matters visual. Another new department, "For the Boys and Girls," will make it its business to publish material that appeals to children who are learning, whether at home or in school, how to "use their eyes."

Especially is **VISUAL EDUCATION** desirous that each one of you should feel that in every sense this is *your magazine*—that your articles and news items, your suggestions and your criticisms, are all cordially invited. It exists to serve you and to further your interests. Let us work together to develop the bigger, better uses of the magic-working tool and toy which the world possesses in the modern motion picture.



Grand Canyon below Tower Fall showing lava needles

Great Yellowstone Falls, the height of two Niagaras, at the head of the Grand Canyon of the Yellowstone. A spectacle one looks upon in silence

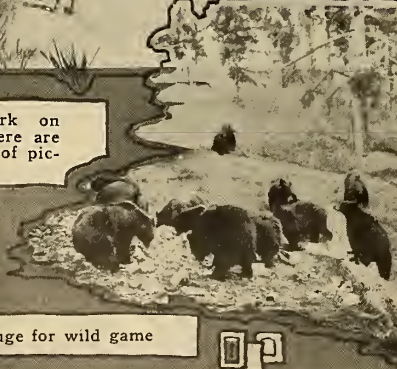


Touring the park on horseback. There are over 600 miles of picturesque trail



Angel Terrace, Mammoth Hot Springs, showing killed and entombed trees

The park is a refuge for wild game



Yellowstone's Golden Anniversary

1872 Established—1922 Semi-Centennial

A. E. DEMARAY

Editor, National Park Service

THERE returned to St. Louis in 1810 one John Colter, a scout, trapper and hunter who had served with great credit in the historic expedition of Lewis and Clark. His tales of incredible adventures and privations, and of his discovery in 1807 of a region of steaming hot springs, great lakes and mighty rivers, were laughed at in derision. Colter was greatly hurt by this reception of his accounts of his wanderings and soon dropped out of sight, but in St. Louis for two generations what is now Yellowstone National Park was known as "Colter's Hell."

The second discovery of the Yellowstone was made in 1830 by James Bridger, discoverer of the Great Salt Lake. Bridger's accounts of its unusual phenomena were also scouted, but Bridger, unlike Colter, enjoyed his reputation of being the greatest "yarn spinner" of his time.

Yellowstone's Marvels Finally Credited

From 1830 to 1840 many trappers and hunters visited the region, but it remained for Warren A. Ferris, a clerk for the American Fur Company, to give the world the first written account of the geysers. This was published in 1842. Ferris visited the Firehole Geyser Basin in 1834.

In 1869 a surveyor named David E. Folsom, with C. W. Cook and William Peterson, visited the region and brought to the outside world the first sequential and convincing accounts of the phenomena, reports of which up to that time had been considered as preposterous and visionary. Their report was respon-

sible for the organization in 1870 of the famous Washburn-Doane Expedition, from which dates the latter-day history of the park.

Among the celebrities of the expedition of 1870 were General Henry D. Washburn, Surveyor-General of Montana; Nathaniel P. Langford, diarist of the expedition and later first superintendent of the park; Cornelius Hedges, who first proposed setting the region apart as a national park; Samuel T. Hauser, later Governor of Montana; Truman C. Everts, who became lost from the party and suffered untold hardships until found, and Lieut. Gustavus C. Doane, Second Cavalry, U. S. A., who headed a military escort of a sergeant and four privates.

The U. S. Establishes a Park and a Precedent

The publication of accounts by members of this party as well as by F. V. Hayden, leader of the official Government expedition which explored the region the following year, coupled with their personal efforts in Washington in behalf of the movement to set apart this area, led directly to the establishment of the Yellowstone National Park. On March 1, 1872, Ulysses S. Grant signed the Act of Dedication.

This remarkable act, which established the Yellowstone National Park "as a public park or pleasure ground for the benefit and enjoyment of the people," contributed to the quick fame of the park. Such a thing was at that time an unheard-of proceeding among national governments. It set a precedent which has since been and will hereafter be followed by other nations.

The Playground of Today

Few of the thousands of tourists who will visit the Yellowstone this year of its golden anniversary will be able to realize the hardships and privations endured by the first explorers and early pioneers. For today excellent roads lead from one wonder area to another; there are sumptuous hotels, comfortable permanent camps, and delightful camping grounds for visitors who keep "on the move" and carry their own equipment.

Alluring trails there are for the horseback rider and the hiker, leading through some of the park's most magnificent scenery. Along these trails the visitor may make intimate studies of the park's bird and animal life, for as the playground of the people Yellowstone serves as our greatest wild-life sanctuary.

Yellowstone's "Pageant of Transportation"

As part of the exercises to celebrate the semi-centennial, a pageant of transportation is planned during the season. Beginning with the Indian travois and Indian ponies, all the various types of transportation which have played an important part in the winning of the West will be represented. Present will be the covered prairie schooner, the six-horse Deadwood Stage, the six-horse Concord Coach, the two-horse mountain surrey, and the automobile stage. The park's motorcycle ranger force, together with horseback riders and private motorists, will also participate in the pageant.

Tune up the old bus; put in camping equipment, fishing tackle and a camera, and join the procession trekking West. For this is Yellowstone's year.



Playing the Health Game

Visualization Brings Drama and Interest into Health Teaching

GRACE T. HALLOCK

Child Health Organization of America

UNDERSTANDING of the fact that it is an instinct of childhood to experience things in a series of dramatic pictures has inspired the Child Health Organization of America to teach health habits as the rules of a game, with the emphasis laid on the positive good habits rather than the negative bad ones.

Health fairies, clowns and gnomes, story-books, plays and little rhymes transport the facts of hygiene from the desert of a dull book into the delightful land of make-believe. There fruits and vegetables, fresh air and sunlight, tooth-brush, bath-tub and soap become the actual personifications of the good fairies, and coffee and tea and all the other enemies of childhood become wicked ogres and witches.

Health habits are fitted with the glass slipper of imagination and lifted from the ashes of the commonplace into the palace of romance. Technicalities like vitamins and calories, about which even the minds of grown-ups are in a rather nebulous state, actually become the playmates of the children and appear as characters in little plays, or are sung about to rollicking tunes with easy familiarity.

Milk, the most important food of all, acquires a glamor that it never had before when a child is told that every time he drinks a glass he is

really setting to work magic little carpenters to help build his body straight and strong. The pith of the whole matter lies in the fact that when a child's interest is touched he is stimulated to adopt health habits that he would never have considered otherwise.

A Lesson from War Times

The necessity of teaching health habits to children as a prerequisite to healthy manhood and womanhood was not generally recognized and acted upon until the war. Then the selective draft revealed the fact that a large proportion of young men were rejected because of physical defects due to under-nourishment and faulty health habits in childhood. Surveys in the schools in various parts of the country had also shown that about twenty per cent of the school children were suffering from malnutrition to such a degree that it might be considered serious. Taking these facts into consideration, the Child Health Organization of America was founded in the spring of 1918 for the purpose of conducting a nation-wide campaign to raise the health standard of the American School Child.

"Weight Up to Height"

In such a campaign, the co-operation of the children themselves is essential. In fact, they are the troops. The campaign leaders can only point out the objectives and the

way to reach them. The children themselves must do the rest if they are to enjoy the fruits of victory.

The main objective in the campaign is "Weight up to Height." The way to reach this objective is to practice the health habits. The fruits of victory are health and happiness through life.

To children the terms, "Weight up to Height" and "Health Habits" are pure abstractions. As such they are not comprehensible. A child's mind is concrete; it visualizes everything that it considers worth thinking about. The classic example, of course, is the child who visualized God as a down quilt because He is spoken of as "the Comforter."

Cho-Cho and the Health Alphabet

The Child Health Organization first introduced the health habits to the children in a little book written by Mrs. Frederick Peterson, called "The Child Health Alphabet." Even grown-up people use the A B C's to express the idea of first principles. To children it is even more closely allied to a conception of fundamentals. It is, for them, literally "the beginning of wisdom."

However, the rhymed health habits in The Child Health Alphabet are not only companioned by such distinguished associates as the A B C's; a funny little elf in red pants and tasseled cap was christened with the initials of the Child Health Or-

ganization and transported to the Introductory Page, where he made his bow and spoke his first piece: "Cho-Cho says, and Cho-Cho knows! that if you do as these rhymes say, eat and drink and bathe, and play and sleep in the good fresh air, you will surely be happy and gay." Cho-Cho thus became a personal friend to children everywhere, for over 2,100,000 copies of the Alphabet have been sold since its first edition.

The Clown Who Teaches the Health Game

Cho-Cho, the little elf, was a figure of the imagination. The next step was to make him come true. A circus clown was found to impersonate Cho-Cho and thus the dramatic character as a teacher of health habits was launched. Children in schools all over the country have made the acquaintance of Cho-Cho and are playing the health game because he has told them to.

The rules of this game, as formulated by the Child Health Organization and endorsed by a group of

noted educators and pediatricians, are as follows:

A full bath more than once a week.
Brushing the teeth at least once every day.

Sleeping long hours with windows open.

Drinking as much milk as possible, but no coffee or tea.

Eating some vegetables or fruit every day.

Drinking at least four glasses of water a day.

Playing part of every day out of doors.

A bowel movement every day.

The next publication for children was a little fairy book called "Cho-Cho and the Health Fairy," written about the adventures of Cho-Cho, by Eleanor Glendower Griffith. And one day a real Health Fairy popped out from between the pages to tell the children how she adds new bricks and shingles and colored glass to her house every time a child learns to eat the right food, to sleep in the fresh air, and to play and be happy.

After the Fairy came the Jolly Jester, who makes his talking doll and his talking vegetable man, Char-

lie Carrot, tell the children their views on health. And finally Happy arrived from Healthland with a huge book that explains all the rules of the health game for older boys and girls.

A Method That Wins Eager Interest

The latest adventure of the Child Health Organization in the field of dramatic health teaching has been the production of health plays as classroom games, without exhausting rehearsals. "Joy," a talented member of the staff, stages these plays and takes the principal part in each.

It is in the school, of course, that the most successful health work with children is done, and the correlation of health teaching with the regular school curriculum is the most successful method of gaining the child's interest. Teachers have been stimulated by the children's eager imagination to invent hundreds of devices for teaching health habits. They encourage the writing of health jingles in composition periods, and



A LESSON FROM THE BOYS' LOYALTY PARADE

Flourishing a cat-o'-nine-tails made of tiny paper milk bottles, Milk Bottle chases Teapot and Coffee-Pot down the street. This visualization of one of the first lessons in health education provided one of the most effective features of the Boys' Loyalty Parade in April.

the making of health posters in the art and handwork classes. Holidays and special occasions have brought forth delightful little health booklets that are sometimes surprises for the teacher.

How Candles Visualized the "Early-to-Bed" Habit

In the Joplin, Missouri, schools one teacher in developing the early-to-bed idea for primary children arranged a row of candles with hinged candle flames, one for each child around the room. Every morning she inquired which children had gone to bed early, and for those who had, the candle flame was turned down.

A school teacher in Steubenville, Ohio, to induce her children to drink milk and give up coffee and

tea, drew a coffee-pot in one corner of the blackboard and in the opposite corner pasted a picture of a fine Jersey cow. Under the cow was printed, "We Drink Milk," and the names of the children who drank milk were written beneath. Each week the list of the children who drank milk increased until finally every child in the room had his or her name under the cow. Then, with great ceremony, the coffee-pot was erased from the blackboard.

To teach cleanliness, a teacher in another school told her children the story of the "Little Pig Brother" who had to go out and live with the pigs because he wouldn't keep clean. Then she had small pictures taken of each child and pasted these on a large sheet. Little pigs were cut

out of paper, and when the pupil inspector found a child with dirty hands or some other mark of uncleanliness, that child had to go up and pin a little pig over his own picture. The children loved this game, and soon cleanliness abounded in that room.

Health Poster Contests

One of the very first delights of childhood is dabbling in a paint-box. Surely, a pair of scissors, innumerable sheets of tinted paper, and a box of paints are important properties in a child's vision of heaven!

To guide this innate love of artistic creation into the channels of health education is a very simple process. Health poster-making utilizes not only the child's instinct to make actual pictures of what he sees or thinks, but also teaches him to adapt his mental images and thoughts to a definite purpose. Health poster contests have been used in the schools to stimulate interest in health habits with surprising results.

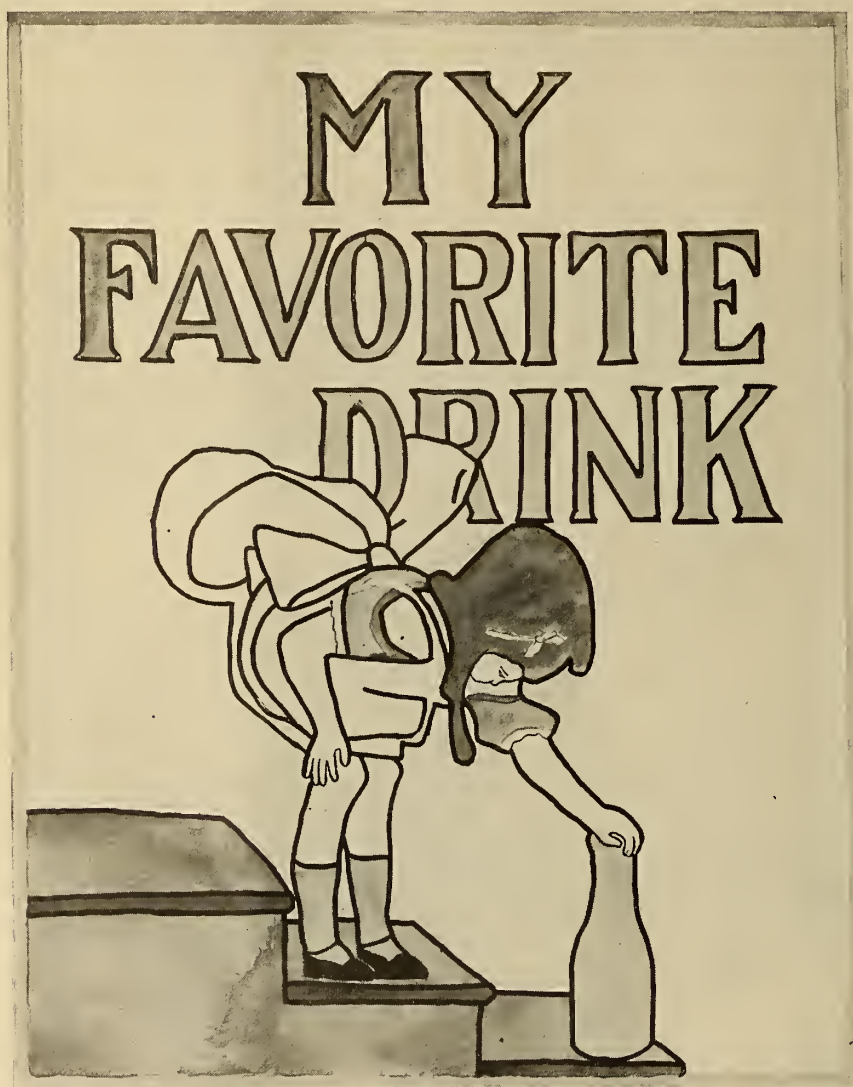
And Then—Parades!

Another successful method of vitalizing health education is found in the parade idea. Nothing fires the imagination of children so quickly as color, music and pageantry. Toy drums and flags and paper caps to a child are merely an excuse for the delirious joy of marching around and around and up and down.

The Child Health Organization demonstrated the value of the dramatic element in health education in the Boys' Loyalty Parade in New York last April. Health Habits were personified by boys in costume, and Milk Bottle, followed by a whole troop of Fruits, Vegetables and Good Habits, came striding down Fifth avenue, lashing Teapot and Coffee-pot with a cat-o'-nine-tails made of tiny milk bottles.

"Judge Scales" and His Decisions

In playing the health game, however, acquaintance with the health habits and a desire to practice them are not enough to satisfy the child's



A PRIZE HEALTH POSTER

Margaret Cox, a 9th grade pupil, dressed this little girl up in pastel shades of blue and yellow to bring in the milk, and thereby captured first prize in the Health Poster Contest conducted by the schools of Trenton, N. J.

imagination. The playing of a game must have some object; one must either win or lose. And here enters "Judge Scales." A child's nutrition is the index of his health, and by careful research it has been determined that a child's weight in relation to his height and age is the most accurate standard whereby his nutrition may be estimated. Therefore, all the zest is taken from playing the health game if there is not a scale in the school to act as an impartial judge of the child's progress.

The value of scales as a stimulus to the imagination was illustrated in the Newton School System in a race staged in one of the grades by two little underweight boys of exactly the same height and age. They raced to see which one could reach normal weight first, and the whole class was intensely interested. Each had a different theory as to how a gain in weight could be induced, John being a devotee of egg-nogs and Jim of milk. Great was the excitement when John passed Jim by two pounds, only to have Jim get the better of him by half a pound later on.

Each school child knows his own weight and whether he is underweight or normal, and even what contributes to his weight variation from month to month. Health is taught in such a dramatic way that the inevitability of the effect produced by practicing or not practicing "the rules of the game" becomes an integral part of the child's mental equipment.

What Health Education Means Today

Health education, then, is taking on a new meaning. It is no longer to be thought of as the tortuous path on which many a boy and girl has slipped to disaster in routing food through the alimentary canal on examination papers. To the children of today health means rosy cheeks and strong limbs, keen minds and happy faces, boys and girls growing up to enjoy the possession of their childhood heritage of sound bodies and happy minds.

\$10,000 Granted for Research in Visual Education

THE DIRECTORS of the Commonwealth Fund have approved the recommendation of the Educational Research Committee that \$10,000 be granted the University of Chicago for the prosecution of research in visual education. This research is to be carried on under the direction of Dr. Frank N. Freeman of the Department of Education.

The work will consist of experiments conducted in public schools to compare the efficiency of visual methods, and especially to study the effectiveness of motion pictures in comparison with other methods. The particular aim of this study is to discover the types of lessons or the

problems of instruction which are adapted to this new method of teaching. It is desired to determine whether or not the production of educational films is proceeding in the most economical and advantageous direction.

The second part of the study deals with the method by which the motion-picture film may be better adapted to the purposes of teaching. This phase of the research will consist in a more analytical laboratory study of the various factors comprised in the motion-picture film, in order to investigate their effectiveness in detail.

A number of other educators are to be associated with Dr. Freeman in the work.

Y. W. C. A. Makes Film for Drive

"BACK OF THE GIRL," a motion picture showing how the Young Women's Christian Association stands back of the girl life in a great city, with its program of Housing, Health, Education, Recreation and Spiritual Force, has just been completed by the Y. W. C. A. of Chicago, and will be shown throughout the city as a re-enforcement to the Budget Campaign for \$305,000 to be carried on May 15-25.

The film is in two reels and, beginning with the girl as she enters the North Western station in Chicago, depicts how the Association meets her first great need—a home—and her successive needs of a Job, Friends, Health, Education and Good Times.

The idea of producing such a film originated with the Y. W. C. A.'s advisory committee of business men, made up of David R. Forgan, Holmes Forsyth, John Stuart, Cyrus Hall McCormick and A. W. Harris.

"The first thing the men wanted to know when we talked over with them the question of raising money

was, 'Have you a movie? If not, how long will it take you to have one made?'" said Miss Ava Blank, special finance worker of the National Board.

"They said, 'We want to get this thing before the business men of Chicago. Now, business men can't go running around to visit all the Y. W. C. A. centers in Chicago, so the thing to do is bring the Y. W. C. A. centers to the business men. The only way to do it is with a movie. You can talk to them, and you can shower them with pamphlets and nothing will happen; but when you actually *show* them, so that they can see with their own eyes these girls in their Y. W. C. A. health classes, their Y. W. C. A. homes and their Y. W. C. A. camps, and the good that's being done, you'll convince them. Let's have that movie.'"

Although the film will have its first showings in connection with the campaign, it is not limited in its scope to being purely a campaign picture, and it makes no direct appeal for funds.

The Motion Picture—Yesterday And Today

PART III

MARY MCKENZIE FRENCH

Society for Visual Education, Chicago

THE birth of the motion picture is so recent an event that it is still fresh in the memory of those who are reasonably justified in considering themselves young. With the perfecting of the motion-picture projector, the camera and the celluloid reel in the early nineties, came the opportunity for picture production. And men of far-reaching vision, comprehending rather vaguely that the riches of Midas were tucked away in the reels of the motion picture, hastened into the venturesome field of production.

Like the planets, the motion-picture drama was destined to take form in the midst of chaos. There was no precedent to serve as a guide, and more complications and difficulties reared themselves in the path of the pioneer than can well be imagined.

French and English Producers First in the Field

In the earliest period of production, American producers were em-

broiled in litigation and choked by competition and lack of regulation. Productive enterprise in this unexplored field was begun by Englishmen who manufactured crude film dramas on a wholesale scale. One producer alone, James A. Williamson by name, made from sixty to eighty films a week for the American trade. In France, also, production flourished and companies of solidity and future renown, such as Pathé Frères, for instance, built large studios in which a number of companies with legitimate actors and genuine stage managers were employed. They made no such determined efforts to capture the American trade as did their English rivals.

America Begins to Make Film History

By 1900, however, American film industry had aroused itself from this state of lethargy, and a combination under the leadership of Edison was formed to boycott for-

eign pictures. The English industry then proceeded to sink into a prolonged and death-like coma, while the American industry grew and flourished like the proverbial green bay tree. Companies whose names have become household words sprang up everywhere. Lubin, Kalem, Edison, Biograph, Mutual, "Flying A," Selig and Keystone are but a few of the many that could be listed.

In the early days a motion-picture play was a pictorial monstrosity and the work of directors and actors, while sincere enough, was most questionable from an artistic standpoint. As a matter of fact, the picture was then, as even now, frankly a money-making means. The possibilities lying before it as a varied form of dramatic expression were still shrouded in the mists of the future so far as those who dealt with its early career were concerned.

The very public which patronized the cinema appeared, strangely enough, to regard itself as branded with an indefinable and perpetual stigma because of its attendance upon this questionable amusement—the "penny-gaff," as it was scoffingly christened in England.

Primitive Plots

The first pictures were merely reproductions of common events such as happened to fall under the photographer's attention and could be recorded by the camera without undue expense or effort. Humor was gradually introduced, with increased action—humor of the brand which we now label slapstick. If a person fell down the front steps to the detriment of his dignity—very good; if a number of individuals fell simultaneously down the same steps, with collective loss of dignity—*fine!* The preference of the "movie fans" of that time demanded the elephant-



THE BLACK MARIA

This nondescript building resembles nothing so much as it does a squatter's hut, yet it is one of the early studios that saw motion-picture history in the making. The circular track enabled it to follow the sun.

Courtesy of J. B. Lippincott Co. From Talbot's "Moving Pictures: How They are Made and Worked."

tine and the obvious in fun-making.

In due course of time, however, the increasingly omnivorous and fickle public wearied of this Neolithic type of cinematic wit and showed signs of desiring a plot, a romance, a dash of tragedy—something, at any rate, more intriguing and inspiring than the spectacle of the law of gravity in operation. And with the birth of the lusty screen drama, came the beginnings of the modern studio.

The Famous "Black Maria"

"The Black Maria" smacks of Diamond Dick stories and suggests something pleasantly dark and mysterious. In motion-picture history it is, however, an epithet of significance and veneration, for it is the name that was applied to one of the first motion-picture studios in this country—a studio erected in the yard of the Edison laboratories.

The building thus intimately referred to measured all of twenty by twenty-five feet, and was so arranged upon a circular track that, like the fire-worshippers of old, it followed the course of the sun through the heavens. Its humble exterior was adorned with funereal-looking tar paper, but since appearance and achievement are fortunately not synonymous, the importance of this simple edifice was out of all proportion to its size.

When a Production Cost \$25

Those were the good old days! A picture forty feet in length might perhaps cost the amazing sum of twenty-five dollars, whereas the average cost of a feature today is fifty thousand dollars. The sole form of lighting was that which a beneficent sun provided. When that luminary withdrew the light of its countenance production languished, to the detriment of purses and of art. The settings and costumes were those of emergency and of rapid improvisation, and the most important thing was to keep them from costing too much. The idea of forming what might be called a dramatic liaison between the action and the background simply had not occurred to



ENGLAND'S FIRST CINEMATOGRAPH STUDIO

This crude studio, built by Robert W. Paul, differed from "The Black Maria" in that it was stationary. In order to take continual advantage of the sun, camera and operator were mounted upon a traveling platform.

Courtesy of J. B. Lippincott Co. From Talbot's "Moving Pictures: How They are Made and Worked."

anyone. No one quite realized that the motion picture had come to stay, and producers were making hay while the sun shone.

The Stars of Those Days

The actors were gathered from here and there, and were placed on the payroll rather because of their willingness to appear in a picture than because of special histrionic ability. When the dress-suit drama crowded out the early hectic Wild West reel, the possession of a dress-suit was sufficient recommendation to justify the employment of any uncrippled male.

At that time the actor on the legitimate stage turned thumbs down on any proposal to participate in that sorry mongrel of a new drama. The mere suggestion was an insult to him, to his dignified and ancient profession, and to the native stage. One must not be too astonished, however, at his firm refusal to identify himself with this undeveloped form of art. Because of the poor lighting, the lack of mechanical devices, and many other unfavorable conditions, no opportunity was afforded for subtlety of acting or of facial expression. Flamboyant pantomime and exaggerated interpretations were necessary in order to get across the intended effect in the short space of time allowed for scenes.

It is recorded that one actor played fifteen different rôles in the same brief picture, and he was doubtless delighted to receive one or two dollars as recompense for such a day's colorful work. Armies were composed of a score or so of men, so skillfully maneuvered around the lot before the camera that the optience got the impression of invincible hosts marching to battle.

A Film Drama in 40 Feet

One of the earliest film dramas on record was "The Soldier's Courtship." This sentimental little photoplay, which crowded a plot and considerable action into a little over forty feet of film, was made by Paul, the man who was most responsible for the introduction of the motion picture to England. He was one of the first to realize that the film could be utilized to tell a story, and obtained permission to use the roof of the Alhambra Theater in London to stage his experiment. He was not the only producer to use a roof, for in the early period many companies built their small studios on the roofs of high buildings in order to obtain all possible sunlight and freedom from interruption. Sometimes, however, the stage was a mere platform or an empty corner in a store—anything that could be found and

(Continued on page 279)

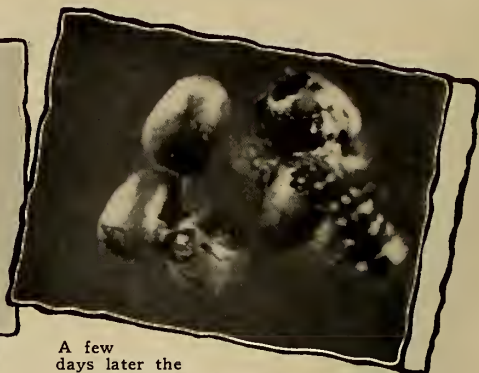
How the Motion Picture Tells the Story of the *Samia Cecropia* Moth—Our Giant American Silkworm



A mother *Cecropia* depositing her eggs—no bigger than pinheads—on a willow branch.



She secretes a reddish waterproof glue and attaches her eggs to the stems and the under sides of leaves. Between 100 and 150 eggs are laid before she dies.



A few days later the baby caterpillars eat their way out of the eggs. They are only $\frac{1}{4}$ -inch long.



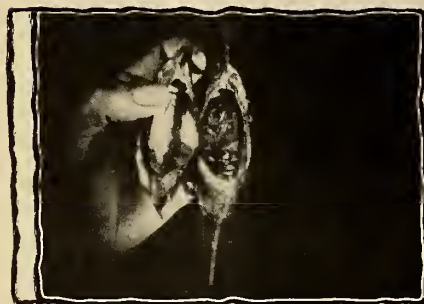
The caterpillar eats and eats, and grows and grows. After its fourth moult it is 3 inches long and as thick as a man's thumb.



Summer over, the caterpillar begins to spin. Here we see the first steps—fastening the heavy threads or "guy ropes" that support the cocoon.



Here the outer wall is still thin, and we watch the larva working on the tip. It spins this end very loosely, to make emerging easier.



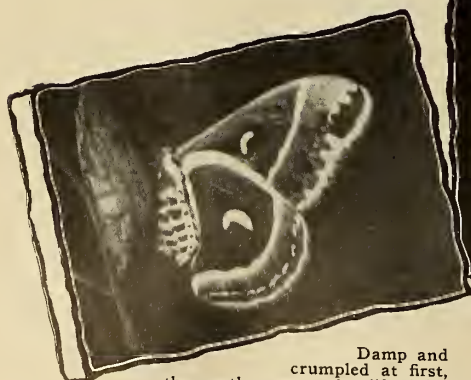
After more than 48 busy hours, the cocoon is finished. For the last time the caterpillar moults. Here you see the inner cocoon slit to show the sleeping pupa within.



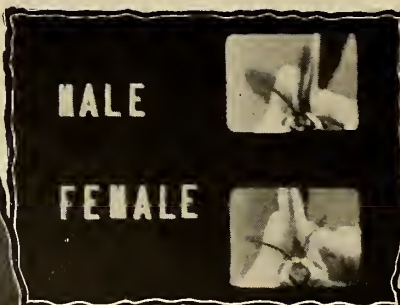
Comparing the inner cocoon with the Japanese silkworm's cocoon. If ever the *Cecropia* is domesticated, it is these fine, tough inner fibers that will be used.



Called by the warm spring, the moth awakes, moistens the threads at the tip of its cradle, and vigorously pushes its way out through the small opening.



Damp and crumpled at first, the moth pumps the life juice into its veins until the great wings are straight and dry.



Notice how much larger and more feathery are the male's antennae than those of the female. They are his scent organs. Unlike the butterfly, the moth has no knobs on its antennae.



Here is the merest bit of *Cecropia* wing photographed under a high-power microscope.

The Word and the Picture in Human Evolution

*Editorial Contribution by WILLIAM CHANDLER BAGLEY,
Professor of Education, Columbia University*

THE most important agencies in promoting human progress have been the means that mankind has developed for communicating ideas. The earliest refinements of articulate speech and the crude beginnings of drawing mark man's first significant step upward from the brute. It is not too much to say that the word and the picture started a new kind of evolution. From that time forth the individual could participate in the thoughts and feelings of his immediate fellows. Some of the lessons that each generation learned could be passed on to those that came after. Traditions could be accumulated in the family and the clan. Men could think in common terms and strive toward common purposes. Within narrow limits, they could live in a common past and look forward to a common future. Social life, community life, co-operative life had their rude beginnings.

GRADUALLY, after how many thousands of years one can only conjecture, social evolution took another great forward step with the development of writing. Again it was the word and the picture—this time in combination, first as a pictograph and later as a phonetic symbol. Writing and reading lacked as yet a universal appeal, for only a favored few could master their technique. But these had a tremendous advantage. Not only could they participate in the experiences of their immediate fellows, but in a very real sense they could live with and learn from the most gifted minds of all time. Recorded knowledge, vastly more dependable than verbal tradition, steadily accumulated. The common past became immeasurably extended. Favored individuals widely separated from one another could think together and plan together. Social units were bound together by new forces; larger communities became possible; the agencies of co-operation were multiplied.

THEN the time arrived when the privilege of the favored few became the prerogative and the right of the many. This was the third great turning-point in social evolution—the development of printing. It was through no mere accident that the dawn of modern civilization in Europe was coincident with the feeble squeak of the first printing-press. A new-born babe destined to grow into a mighty giant was then gasping for its breath. Very quickly it was breathing deeply—and crying lustily. What that event meant for mankind has been dramatically portrayed by Mr. H. G. Wells:

"...From the first writings onward a new sort of tradition, an enduring and immortal tradition, began in the minds of men. Life, through mankind, grew thereafter more and more distinctly conscious of itself and its world. It is a thin streak

of intellectual growth we trace in history, at first in a world of tumultuous ignorance and forgetfulness; it is like a mere line of light coming through the chink of an opening door into a darkened room; but slowly it widens, it grows. At last came a time in the history of Europe when the door, at the push of the printer, began to open more rapidly. Knowledge flared up, and as it flared it ceased to be the privilege of a favored minority. For us now that door swings wider, and the light behind grows brighter. Misty it still is, glowing through clouds of dust and reek.

"The door is not half open; the light is but a light new lit. Our world today is only in the beginning of knowledge."

IT was the possibility of a vastly extended appeal that made printing a powerful force in social evolution—the possibility of bringing to an ever-increasing number of people a priceless common heritage. The appeal grew with the refinement of the printer's art. Again the word and the picture were combined, this time in text, illustration, map and diagram. Instruction in reading, now well-nigh universal in civilized countries, brought the multitudes under the influence of the printing-press.

WITHIN the past century other agencies of communication have been developed—the photograph, the telegraph, the telephone, the phonograph—each an important factor in bringing men together, in promoting common knowledge as a basis for co-operative thinking and planning. But no one of these developments, important as each is, can in itself stand as a rival to the art of printing as a determining force in social evolution; for no one of them in itself has increased so significantly the *appeal* of knowledge to larger and larger numbers of people. There are, however, two more recent developments that bid fair to rival the printing-press in this important respect. The moving picture has already demonstrated its rich possibilities; and now, almost overnight, we are confronted with the undreamed-of promises of the radio telephone.

AGAIN it is the word and the picture—the two subtle but potent forces with which social evolution started—now given a new and tremendous enlargement of power and influence. Little more than playthings as yet are these latest developments; but the first words were only interjections of joy or sorrow, and the first pictures had no serious purpose. What we can be certain of is simply this: that mankind now has at its command two essentially new means of disseminating ideas on a vast scale and with an unprecedented possibility of universal appeal.



Visual Activities

The World Over

CALIFORNIA

Berkeley. A recent report from the extension division of the University of California states that more than 75,000 persons, most of them school children, are attending the film showings made possible by the university extension department. Among the most popular pictures circulated in eighty schools during January were strictly educational films covering every subject taught in the schools. Edward Mayer, head of the Visual Instruction Department, states that the increase in the use of school films is remarkable. He is constantly securing more non-entertainment films to meet the demands of schools and clubs throughout the state.

FRANCE

Paris. Nine grants of 500 francs each have been made for the purpose of installing motion-picture equipment in several educational institutions. Seven boys' schools, one girls' school and one professional school are to be the beneficiaries of this donation, which has been put into the hands of either the heads of these institutions or alumnae who have the work in charge.

GERMANY

Berlin. The Einstein theory has been filmed and is on its way to New York and Chicago as a new movie. The motion picture is expected to make plain to "the man in the street" the intricacies of relativity. Because many students failed to grasp just what Mr. Einstein was talking about, six learned European professors got together and wrote a scenario. The resultant 6,000 feet of illustration and explanation will prove how much can be made plain by the visual method that the mind otherwise finds difficult to comprehend.

ILLINOIS

Chicago. Motion-picture shows have for some time been one of the affiliated departments of various railroads. H. J. Schweitert of the Illinois Central tells of the good that has been done in backward rural sections of Illinois, where no electricity was available to run the projector except by attachment to an automobile. Films on dairying, poultry-raising and other farm subjects have been shown by the railroad's development bureau to about 10,000 people. In the lectures accompanying these pictures the farmers have not only been urged to increase production, but to secure more economical production. The importance of improving rural life is emphasized by urging the farmer to give his wife and children labor-saving machinery and the conveniences so essential in making farm life pleasant and attractive to them—a thing which must be done if boys and girls are to remain on the farm.

INDIANA

Crawfordsville. Visual education has been given a successful start in the public schools. The first showing of weekly films was given in the high school auditorium, with every child in the city schools and every teacher below the high school in attendance. The tide of enthusiasm ran high and a decided increase of interest in school work is looked for.

IRELAND

Dublin. It is reported that the new government of Ireland fully appreciates the value of the film both for propaganda and for visual instruction in the schools. Despite the unsettled condition of some branches of the government, plans are in progress for visual education aids which are said to be worthy of imitation by older

governments. It is proposed to take motion pictures of industrial and mechanical improvements in various sections of Ireland and also to use pictures from other countries, in order to keep abreast of the times in such matters.

KANSAS

Wichita. On March 29 representatives of the Kansas film exchanges agreed that the practice of supplying churches, school and municipalities with entertainment films would be discontinued. In future only films directly related to education, science and religion will be released for showing in other than legitimate motion-picture theaters.

It is significant to note that a strong protest against this decision was made by a delegation representing the Ministerial Alliance from Arkansas City. But the film men backed up the contention of the theater-owners that unfair competition was created by the non-theatrical showing of fiction films. In a statement prepared for publication the theater-owners explained their stand by showing that church and school pictures at reduced prices seriously handicapped their business, which was purely a commercial venture. The film supply houses also explained that they were in business primarily to supply theaters with films, and that if they violated the wishes of the theater men they would have to suspend business. This decision in Kansas is a new departure which may be far-reaching in its effects.

NEBRASKA

Auburn. There are business firms that do not try to do business without the aid of the movies. Woods Brothers Construction Company of Lincoln is one of them. They recently used their pictures to good advantage at a meeting of the Board of County Commissioners. Some kind of plan was being considered to eliminate the horror of the Missouri river, which frequently threatens to destroy the rich land in its vicinity. The engineering feat proposed was pictured on the screen for the enlightenment of the Commissioners. "Coaxing the river instead of fighting it," straightening the channel and keeping the current under control, was the method effectively portrayed on the screen. No explanations or arguments could ever have competed with the motion picture in not only show-

ing the construction processes, but also the actual effects of the finished work in other localities.

NEW JERSEY

Atlantic City. Introduction of motion pictures into the school curriculum has proved so successful that the Board of Education has arranged for a series of films to be secured from the State Board of Education. New Jersey's industries will be visualized for the education of the geography classes. The making of pottery from the clay to the finished product, and the process of bread-making from the growing grain to the edible loaf in the oven, will be among the first subjects to be presented.

NEW YORK

Schenectady. It is reported that the motion-picture exhibitors of this city have been making a practice since early in 1920 of turning over five per cent of the gross receipts

of their Sunday performances to charity. This fund is in charge of the mayor and is dispensed among the needy, particularly among the children of the poorer classes.

SWEDEN

Stockholm. It is said that after ten years of experimentation, Sven Borglund, an ingenious Swede, has succeeded in perfecting an invention which makes the talking film a reality. Several months ago it was reported that a demonstration was given before some professional men and journalists who declared themselves satisfied with the perfect co-ordination of the conversation with the movements of the actors projected on the screen.

WISCONSIN

Kenosha. As indicative of the ever-increasing use of motion pictures outside the field of the theatrical world, the recent purchase of a projection machine by the Ke-

Nash-a Club is interesting. The membership of this club is composed of employees of the Nash Motor Works of Kenosha. Through arrangement with the board of education they have installed their motion picture machine in a new school building, where it will be at the service of both club and school.

Wausau. The proprietor of the Stuart Theater has gone into a Saturday afternoon partnership arrangement with the Y. M. C. A., the Boy Scouts, the Y. W. C. A. and the Parent-Teacher Association. These four organizations control the programs presented on Saturdays, and have made themselves responsible for the profitable conduct of the theater over a period of twenty weeks. They have guaranteed five hundred admissions, but it is expected that the actual attendance will at least double this figure.



Readers are invited to address queries on practical projection matters to Projection Department, care of VISUAL EDUCATION

QUESTION—When we project pictures we see streaks darting up across the screen. When the titles are on, the letters have light streaks above them, especially on the right-hand side of the screen. Is this very annoying condition due to a defect in our projector, or is it due to a lack of adjustment?—M. C. P., Indianapolis.

Answer. The trouble of which you speak is undoubtedly due to lack of adjustment of the projector and not to defects in its construction.

In order to explain the origin of streaks on a moving picture screen and the method of eliminating them, it is necessary to review some of the principles of moving-picture projection. When the projector is running at normal speed it projects sixteen separate pictures per second. The film does not run continuously, but each picture comes into the aperture, stops for a brief interval, and is then succeeded by the next one.

The time required to move the film from one picture to the next is one-sixty-fourth of a second. Then the film remains stationary three-sixty-fourths of a second before motion starts again.

During those brief intervals during which the film is moving, the light from it must be cut off from the screen. This is accomplished by a rotating shutter which should be so timed that it cuts off the light as soon as the film begins to move and admits it again as soon as the film stops. If the light were interrupted only when the film moves it would be cut off sixteen times per second. But so few interruptions per second cause an intolerable flicker. Consequently, the light is also cut off once while each picture is stationary, or thirty-two times per second.

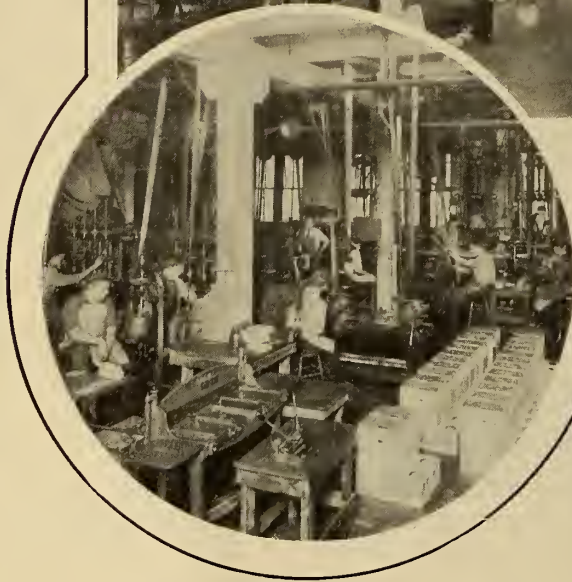
Now suppose the shutter inter-

rupts the light a little too late; that is, a little after the film starts to move. Then there will be a motion of the images on the screen until the shutter cuts off the light entirely. The film is moved downward in the projector. Since everything is inverted on the screen, the streaks will dart upward. Since you saw the streaks *above* the letters in your titles, the film had started to move before the shutter was fully interposed; that is, it was a little too late. If the light streaks were below the letters, it would be a little too early.

To remedy the defect in your projector, loosen the set screw that holds the shutter fast to its shaft, turn it just a little in the direction in which it rotates, and then set the screw firmly again. Two or three trials will secure perfect adjustment.

—F. R. MOULTON.

ACME MOTION PICTURE PROJECTOR



Skilled mechanics make parts for the Acme. Material used by these men has been carefully tested. All parts are again inspected and tested before they are assembled in the projector.

Some of the machinery used in making parts for the mechanism of the Acme. Thousands of dollars have been invested in tools and machinery to insure accuracy in this work. The picture at the right shows the tool department.



ACME
PROJECTOR



Draftsmen are constantly at work on improvements in tools and designs that will keep the Acme in its position as the best portable or semi-portable motion picture projector made.



After the projectors are assembled, they are tested, with both direct and alternating current, for eight hours. This test insures faultless operation of the mechanism.

These pictures show how they are made.

They are built in the best working conditions and are of the finest. Materials are subjected to the most severe tests and are thoroughly inspected by a staff of trained inspectors.

Our

We guarantee every projector to hold up under the hardest use. It gives brilliant illumination and the finest definition of workmanship or results.

Every Acme Projector is Guaranteed

PROJECTORS ARE MADE RIGHT

Acme Projectors

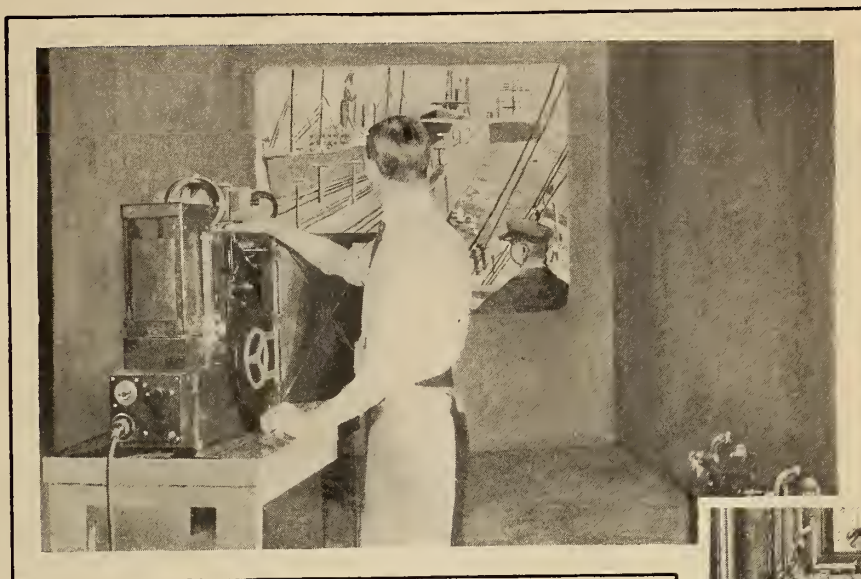
factory where work-
orkmanship is the
re subjected to the
very projector is
tested by a corps
leaves the factory.

antee

Projector to stand
e. We guarantee
eady pictures, and
antee against faulty
imperfections.

ON PICTURE TOR CO.

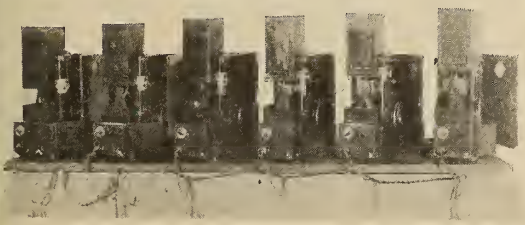
nington Blvd.
go, Ill.



On the third floor of the factory is a projection room where every Acme is given the final inspection and projection test. No projector is passed in this test unless it projects a rock-steady picture, clearly defined, and with brilliant illumination. The picture at the right shows one of the benches where motors are assembled and tested.



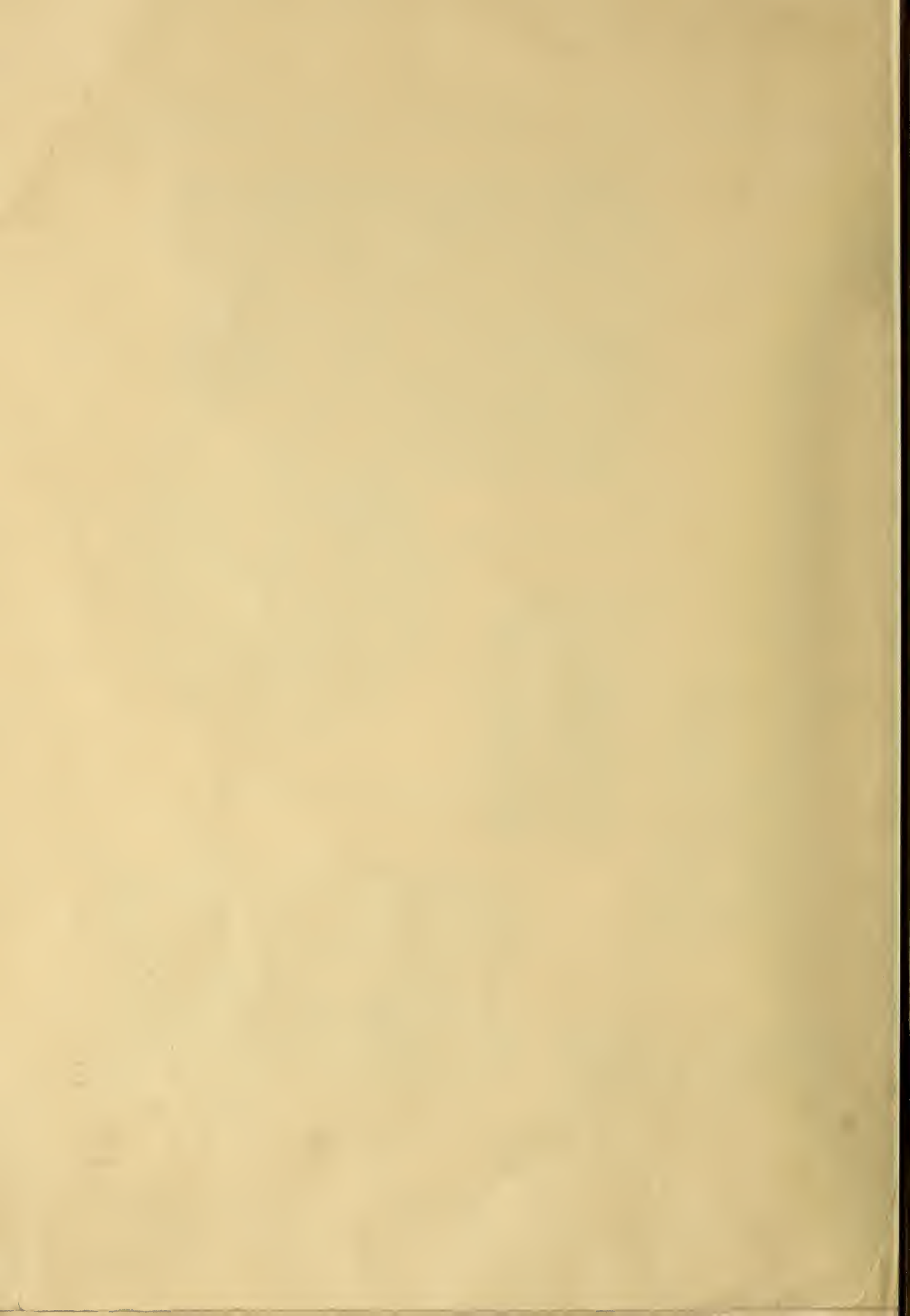
A view of the assembly department where the mechanism is assembled and installed in the case. Notice the light, airy rooms and pleasant working conditions under which all Acme work is done.



Part of one of the benches in the assembly department. The mechanism upon which these men are working insures a steady picture on the screen. Great care is taken in this work.

Every projector goes through the eight hour block test. The pictures above and at the left show sections of the benches where the Acme S. V. E. and the model No. 14 are tested.

Stand up Under the Hardest Usage



ACME MOTION PICTURE PROJECTORS ARE MADE RIGHT

These pictures show how Acme Projectors are made.

They are built in our own factory where working conditions are ideal. Workmanship is the finest. Materials and parts are subjected to the most severe tests and every projector is thoroughly inspected and tested by a corps of trained inspectors before it leaves the factory.

Our Guarantee

We guarantee every Acme Projector to stand up under the hardest usage. We guarantee brilliant illumination, rock-steady pictures, and the finest definition. We guarantee against faulty workmanship or mechanical imperfections.

ACME MOTION PICTURE PROJECTOR CO.

806 W. Washington Blvd.
Chicago, Ill.



Skilled mechanics make parts for the Acme. Material used by these men has been carefully tested. All parts are again inspected and tested before they are assembled in the projector.



Some of the machinery used in making parts for the mechanism of the Acme. Thousands of dollars have been invested in tools and machinery to insure accuracy in this work. The picture at the right shows the tool department.



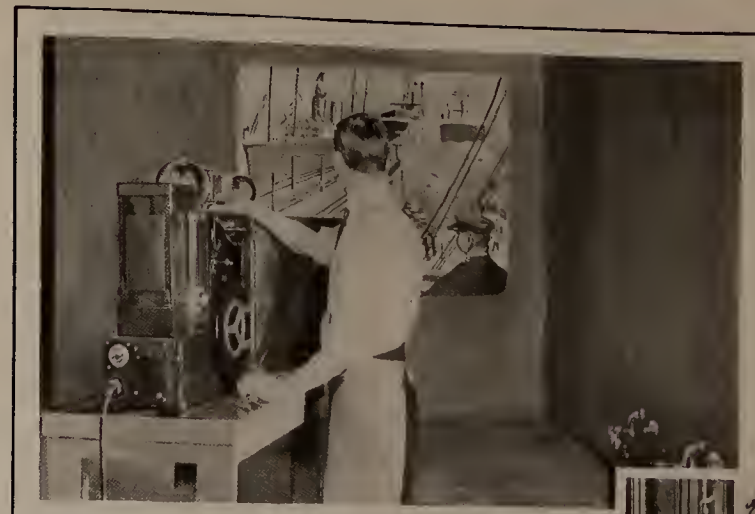
Draftsmen are constantly at work on improvements in tools and designs that will keep the Acme in its position as the best portable or semi-portable motion picture projector made.



After the projectors are assembled, they are tested, with both direct and alternating current, for eight hours. This test insures faultless operation of the mechanism.



Every projector goes through the eight hour block test. The pictures above and at the left show sections of the benches where the Acme S. V. E. and the model No. 14 are tested.

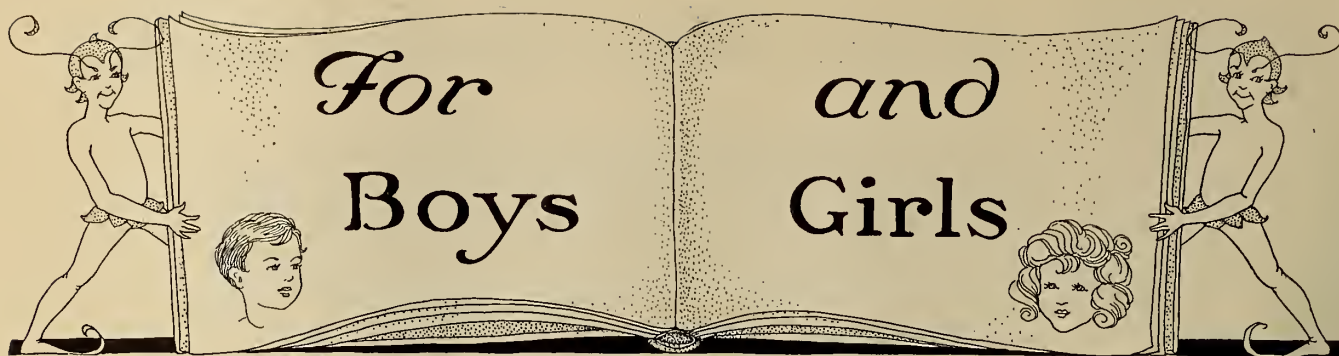


On the third floor of the factory is a projection room where every Acme is given the final inspection and projection test. No projector is passed in this test unless it projects a rock-steady picture, clearly defined, and with brilliant illumination. The picture at the right shows one of the benches where motors are assembled and tested.



Part of one of the benches in the assembly department. The mechanism upon which these men are working insures a steady picture on the screen. Great care is taken in this work.

Every Acme Projector is Guaranteed to Stand up Under the Hardest Usage



"The Silent Call" - The Story Retold

*Strongheart, the Famous Belgian Police Dog,
Is the Hero-Star of This Thrilling Picture-Play*

THE western night was cold, but not too cold for Clark Moran to enjoy the clear, bracing air and the silver moonlight shimmering over the plains and mountains. Although it had been some time since Moran, who was a naturalist, had come to Bar T Ranch to study the out-of-doors, he never tired of his short camping trips in the wilderness.

Suddenly, while he stood lost in thought, there sounded a long dreary howl. There, in the uncertain light of the moon, upon a rounded knoll, was the shadow of a great buffalo wolf. The guide, Dad Kinney, a famous hunter, rushed out with his gun when he heard the cry waver through the air, but Moran struck his gun down before he could aim.

"Don't shoot that wolf!" he shouted. "That must be Buffalo Gray, the very last of the big gray wolves that used to roam the plains. Listen, she is calling for her mate."

The next spring, when the warm chinook winds were blowing and the winter snows were slipping away into the streams, Moran and Kinney found the warm nest of Buffalo Gray and brought home a fine, great puppy, which snapped and growled with the wild spirit of its mother.

"He'll be a devil, all right," old Dad Kinney remarked disapprovingly. "A wolf is a wolf always."

But Moran said: "I'll call him Flash, for he is as quick as a flash." And so Flash he was named.

Within a year, so quickly did he

grow, the puppy was no longer a puppy, but a beautiful, strong animal, the pride of all the cowboys of Bar T Ranch. There was one man, though, who hated him, and that was Ash Brent, the most mistrusted man on the range. It was whispered around that Brent was a cattle rustler, and that strange things happened in a certain sheltered retreat 'way back in the foothills. But if Brent hated Flash, the dog certainly hated the big rough man and would fly at him in a fury whenever he had the chance.

Once while Flash and Moran were on a two days' trip into the foothills, Brent happened to ride past the little tent. There was Flash tied to a tent stake. Brent was too much of a coward ever to attack the great, gray wolf-dog when he was loose, but now he saw an easy chance to get even.

Flash was fearless, but he was tied so tightly that he was nearly helpless. Things were looking pretty bad for him when Moran, who had heard the commotion from a distance, rushed into camp. Straight at each other's throats the two men flew, scuffling and rolling in the dust. My, how Flash wanted to help his master, for Brent was a strong, heavy man and Moran was fighting hard! In his eagerness he tugged and pulled and strained at his rope until he had pulled up the stake and was free. Then, instead of fighting with Brent, Moran had to struggle to protect him from the cruel white

teeth of the angry dog. Brent's clothes were torn to ribbons before he was finally able to reach his frightened horse.

"The next time, Flash," Moran said bitterly, "the next time you shall have him."

There was a sad time coming for Flash, however, for Moran had to return to New York City to see about a book he was writing. Although all the men at the ranch were very kind to Flash, nothing could make up to him for the loss of his master. Day after day he grieved, and day after day he haunted all the places where he and Moran had ever been. But his master did not return and one day, 'way out in the wilds, Flash was so hungry that he killed a sheep and ate where he had killed.

Now, killing live stock is the most dreadful thing that a dog can do, and the law of the range for such an act is death. And Flash, with the taste of warm blood in his mouth, killed again and again, until all the ranchmen were offering a big reward for the capture of the wolf which was destroying their herds.

Old Dad Kinney wanted the reward money badly and finally he tracked Flash down to Bar T Ranch, where the dog had returned in one last hope of finding Moran. It was hard for all his friends there to realize that their fine big Flash was guilty, but the law of the range is a just one and they would not break it. When Flash, who had understood the argument from beginning



Strongheart
his mark



*An H. O. Davis production.
Distributed by First National.*

to end, saw no mercy in the faces about him, he darted out of the door and away like the flash that he was, before Dad Kinney had a chance to take a good aim at him.

And then Flash became wild just as his big gray ancestors had been. Through the cold winter forests he hunted, holing in under the snow through the day. At last a mate came to him and together they ran the range. When the sweet western spring came, there was a cozy little nest that Flash and Silver had dug under the shadow of a lonesome old boulder, and in the nest were some of the dearest little puppies that you or anyone else could ever hope to see.

Then wasn't Flash busy with such a family to care for and feed! He was happy as he had never been before. Happiness is like a rainbow, though—it soon fades away. One day Flash came trotting home with a fish in his mouth for their dinner, but there was none at home to greet him. Wicked Ash Brent had discovered the little home as he was riding by, and Silver and her cunning babies would never again scent the fresh winds of the range. Poor Flash was alone once more.

And now there was trouble every-

where. The sheriff was on the trail of the cattle rustlers and Ash Brent had sent for his employer, a very tricky man, to come and help them out of their difficulty. In the clutches of the rustlers was Professor Houston, who had come out west to study the rock formation. Those fierce, wild men had thought him a spy in the sheriff's pay. His daughter, Betty, was left all alone in their cabin. She had one friend, however, and that was no other than Flash. After long months of loneliness, he had come across Betty one day and protected her from Ash Brent. And now once again Flash had a friend.

Still greater joy, however, was in store for him. One day his keen nose brought him happy news. Clark Moran had returned! And when Flash finally led Moran to the new friend he had made, what was his surprise to find that Moran was looking for just that particular pretty girl. Then everyone was happy. They had to put their happiness aside for awhile, however, because Betty was so worried about her father.

To make what might be a very long story short, the sheriff and his men and Moran and Flash raided the hiding-place of the rustlers and

scattered all those thieves from east to west and from north to south.

Ash Brent escaped, however, and carried Betty off in revenge. It took Flash a long time to follow up the scent and to find Betty tied to a tree. You can well imagine that when Brent saw Flash coming like a streak he started to run. It didn't do him any good, though, for Flash had him, and with blazing eyes and wild snarls was trying to make up for all his wrongs. Brent was almost dead when he managed to get hold of a huge stick and to stun Flash. But Flash staggered to his feet and with all his plucky spirit was again in pursuit.

And then came the end of the long enmity. Brent leaped into a stream to escape and there he was at the mercy of Flash. Maybe Flash remembered Silver and his little puppies as Brent choked and gasped while the water closed over his head. Maybe something told him that, according to the code of his wild family, he had been staunch to his friends and had fought the good fight.

When Moran finally reached the place, Flash, with his wet muzzle to the night skies, was howling the death song of the wild gray wolf.

A Picture-Reading Contest

ON THE next page is the pictured story of an incident that it is said really happened during the days when America was fighting to win her independence from England.

Give the brother and sister names you like—names that were common in Revolutionary times—and then begin to “read the pictures,” from left to right.

Now tell the story in your own words. Remember to put some parts into dialog form, because that will make it more interesting than if you were to tell it all without quotation marks. (You know how much you

like books with plenty of conversation!)

Write out this story in your very best longhand, using no more than 400 words at the very most, and mail your paper to the Contest Editor, care of VISUAL EDUCATION, 806 West Washington Street, Chicago. It must be received not later than June 15.

Put these details at the top of your first sheet:

Name
Age Grade
School
Address
Signature of Teacher or Parent.....

A cash prize of \$5.00 will be

awarded to the child submitting the best story based on these nine pictures. A \$3.00 prize will go to the second best, and one of \$2.00 to the third best.

The names of the three prize-winners, together with the papers they submitted in the contest, will be published in the first issue of VISUAL EDUCATION to appear after the contest closes on June 15.

Teachers are invited to assign this picture story to their classes as a special visual exercise, and to urge every pupil to send in a paper and try for one of the money prizes. A similar invitation is extended to parents who encourage their children to work out puzzles and play “the look-up game” under the evening lamp.

How a Little Colonial Lady Saved her Big Brother from the British Soldiers



Can You "Read" These Pictures?

Three prizes will be paid for the best stories submitted by boys and girls

Read the opposite page for the details
of this interesting visual contest

Turn the Pictures Back Into a Story Again and Win a Cash Prize

Just a Matter of Viewpoint

Old Lady: Are you lost, little girl?
Small Child: Oh, no, thanks, but
mother is.—Bystander (London.)

One day a school teacher asked
whether any of her pupils could play
musical instruments. Calvin answered
proudly, "I can play a phonograph."

Grocery Clerk to Little Boy: "Well,
Bud, what do you want to buy —
candy?"

"Yes, sir. But I gotta buy soap."

Boy Scouts and Their "All-Outdoors" Exhibit

ONCE some of us had a vague notion that the Boy Scouts was a semi-military organization, and, believing that too much attention is given to war, both personal and national, and too little to peace, were not much in sympathy with the movement. The fact that it had spread to such vast proportions, reaching practically all over the world, was attributed to some basic military scheme.

But now everybody has learned that this was a wholly mistaken idea. The Boy Scouts are scouts, not soldiers. Their drills are in tent-pitching, fire-building and cooking out-of-doors — not drills with rifles. Woodcraft on a "live and let live" platform is the fascinating subject which occupies the thought and time of young scouts during after-school hours. They learn to be comfortable, self-reliant and happy without luxuries, and through the organization's influence many a lad has been freed from his mother's apron-strings and many a sensitive hot-house flower has become strong and efficient and manly.

The Art of Fire-Building

The aims and work of the Boy Scouts are nothing if not practical. Have you ever camped out in the

woods or on a mountain overnight and struggled with a fire of brush or logs to keep you warm and cook the food? Has it always been a satisfactory fire and easy to keep burning? It would have been if you had had a Boy Scout along, because he would have known just what kind of fire the conditions required; and, more than that, he would have built it easily.

Notice on the opposite page all the different kinds of fires one wide-awake young scout knows how to make. His name is Cleveland Test and he belongs to Troop 507, called the South Shore Troop, in Chicago.

Visualizing Their Hobbies

Recently, when the troop decided to hold an exhibit to show the constructive work Boy Scouts learn to do with their hands, Cleveland Test built as his contribution these miniature models of six different camp fires. Twigs, sticks, small stones, and tiny utensils from the toy counter were all selected with a careful eye to relative size. The models are in such perfect proportion that the photographs might easily be taken for those of actual, life-size fires. An oblong of thick cardboard covered with glue and then heavily sanded

furnished the base that gives the illusion of sandy ground.

Some of the other boys in the troop chose to exhibit their collections of butterflies, shells, flowers and leaves; some contrived fascinating little models of tents and boats. Later, when these Boy Scout exhibits came to the attention of Mrs. Theron Colton, chairman of the conservation committee of the Illinois Federation of Women's Clubs, she borrowed them for display during the committee's annual All-Outdoors Exhibit.

A Varied and Delightful Exhibit

Here were placed on view all sorts of things pertaining to outdoor interests. There were live bees and cases of bugs, shells and butterflies; there were paintings and posters and flower slides; there were bird-houses, nature-study films and first-aid demonstrations.

Here, in a log cabin erected by the Forest Preserve, were exhibited Cleveland Test's camp fire models which you see reproduced on the page opposite. Their careful craftsmanship would have brought at least a blue ribbon to their maker had there been any prizes awarded. As it was, the Society for Visual Education came upon these excellent examples of visualization and with the Scoutmaster's consent borrowed them when the exhibit closed, so that they might be photographed to pass along to the youthful readers of this magazine.

You are Invited to Exhibit

Let us hear from any of the rest of you who have constructed similar "models in little," or who have done any other interesting things that explain themselves to other people by way of the eye rather than the ear. Send in your posters, your handiwork, or photographs of your favorite collections.

Let us hold in this department a regular monthly exhibit, where work of a visual type done by boys and girls can be shown to all our readers, whether they are youngsters or "oldsters."

Will you exhibit here?



CLEVELAND TEST

Illustrating the "tepee method" of starting a fire.



Miniature Models that Visualize Different Types of Camp Fires

1. HUNTER'S FIRE

This is the kind most often used in camp for preparing a quick meal. Two logs are placed side by side, slightly supported at each end for better draft. Frying-pan and coffee-pot can be put on the fire at the same time.

2. OPEN-HEARTH FIRE

A popular fire for cooking purposes where the camp is of a more permanent nature. Stones are piled along three sides of a square to make an open-oven fireplace.

3. TRENCH FIRE

A very efficient cooking fire, particularly useful when a high wind is blowing and the camp is more or less unprotected. A trench is dug and a sheet of metal laid atop, forming what is almost a regular stove.

4. STAR FIRE

When he wants the greatest heat of the fire concentrated in one spot, as under a suspended kettle, the woodsman decides on a star fire. The logs which make the "star" are pushed in as the ends burn away.

5. "TEPEE" METHOD OF STARTING FIRE

Whittlings, fine twigs, coarse twigs, and finally larger wood are stacked up in the shape of a tepee or a shock of corn, and then lighted at the bottom on the windward side.

6. REFLECTOR OR BACKLOG FIRE

To provide warmth there is nothing to equal a fire built in front of a screen of small logs. The screen prevents the heat from scattering. Such a fire will reflect heat to the tents nearly all night long.

The Picture Hour

The following informal picture-talk is intended to suggest to the teacher various ways in which she can make pictures teach for her and with her. There is no doubt but that a picture with a vital theme can, if properly interpreted, teach as much as, or more than, many pages of textbook information. There are scores of good pictures available for such a purpose that are equal in instructional value to the photograph of the statue selected as this month's subject.

EVERY good American knows how Abraham Lincoln came from the poorest kind of a pioneer home, how he struggled and toiled until finally he became the president of the United States, and in that position guided his country safely through the most dangerous and dreadful part of its history.

We love to read stories of his strength and prowess as a boy. The great strength that he showed, however, when he was clearing the woods on his father's farm was not the kind of strength it took to bear the burdens that he carried when his countrymen were fighting each

other. His was the sorrow and the responsibility of directing a great war. Suppose you write a little theme explaining which kind of strength you admire the most, and why.

The statue on which our study is based this month was made by a very famous sculptor, Augustus St. Gaudens, and stands in Lincoln Park in the city of Chicago where thousands can see it every day as they pass. Many have criticised this statue very severely because they have felt that the position of Lincoln was rather awkward and that there was a lack of unity caused by

placing the large chair so far behind the figure.

Do you think that a statue like this should show the man as he really was or present him in what we call an idealized manner? (Look up that word if you don't understand it.) We all know that Lincoln was gaunt and homely in appearance and none of us would want him to have been any other way. Certainly the sculptor has well caught the kindly, sympathetic expression that marked Lincoln's attitude toward all men, whether they were white or black, good or bad. As you can easily imagine, it is not an easy matter to give such shades of expression to cold, hard bronze.

If you will look up St. Gaudens in the encyclopedia, you will discover that he was Irish by birth but was brought to this country when he was so young that he grew up as an American. Do you think that any native-born American could have shown more love for Lincoln than speaks through this statue?

You can easily imagine that Lincoln is just stepping forward to give the Gettysburg Address. Let's see, just how does that begin? And when was it given?

Don't you think that the people who are able to see this statue once in a while ought to be better citizens just for seeing it? The wonderful thing about Lincoln was that he never preached to other people about being good. He was good himself, and that was all the preaching he did. Once he said, "With malice toward none, with charity for all." Don't you think those simple words best express his beautiful life?

The teacher was using the gramophone to make the children familiar with good music. Two famous opera singers had just finished a duet and the teacher said: "Now, children, who can tell me the names of the singers we just heard?"

"Caruso," replied a small boy.

"Yes, and who was singing with Caruso?"

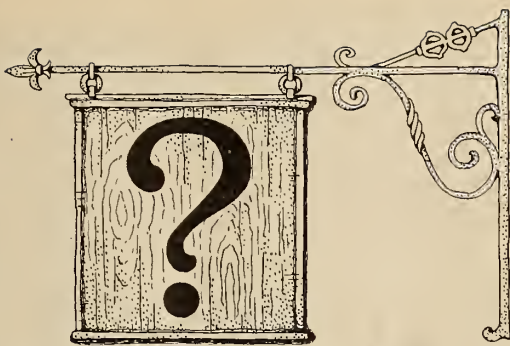
"Caruso's man Friday," was the disconcerting answer. — *Boston Transcript*.



Courtesy of Abbott's Art Gallery, Chicago.

THE GREAT ST. GAUDENS STATUE OF LINCOLN

At the SIGN of the



Readers are invited to submit everyday questions for answer in this department. It is suggested that the queries be direct and specific—narrowed down to a single point—rather than questions of a broad, general character that do not easily lend themselves to treatment in the brief space here available. Address Question and Answer Editor, care of VISUAL EDUCATION.

How would you go about darkening an ordinary schoolroom for showing motion pictures?—R. C. B., DALLAS, TEXAS.

By far the best solution is the customary opaque shade on 3-inch roller side springs. Such shades assure complete darkness.

If opaque shades are for any reason prohibitive, tight-fitting Insulite or compo boards can readily be put in place by the school janitor just before the showing. Painted black, either of these materials is most satisfactory. The boards can be cut to the proper size by the boys in the manual training department.

If special conditions make it impossible to shut off all light, a 4-foot shadow box enclosure around the sides and top of the moving picture screen does a world of good in affording satisfactory projection. In this case the direct rays of light should be cut off from the screen. Even if all the windows cannot be covered with opaque material, it is nearly always possible to cover the few which do the most harm; namely, those admitting light directly to the screen. Heavy canvas often serves other needs about the school and can prove a valuable assistant here.

It is essential to realize that the exact nature of the material used in cutting off the natural light is not important, provided whatever is used is reasonably opaque. The important thing is to have the "darkener" fit tightly so that the maximum amount of light is really obstructed.

Can you tell me where we can secure appropriate slides for use in connection with our work in hygiene?—D. P. M., BOSTON MASS.

Write to the Surgeon General, U. S. Public Health Service, Washington, D. C., for information relative to the Stereopticon Loan Library of the Public Health Service. This collection consists of over 2,500 views, the majority of which are original, dealing with various aspects of public health problems. It is classified under the following divisions:

Alaska, Children and Children's Diseases, First Aid, Physical Fitness, Hookworm, Indians, Leprosy, Living Conditions or Housing, Malaria, Mouth Hygiene, Milk, Parasites and Organisms, Pellagra, Physiology, Plague, Service General, Rural Schools, Smallpox, Trachoma, Tropical Diseases, Tuberculosis, Typhoid Fever, Venereal Diseases and Yellow Fever.

The slides are lent without cost to physicians, health organizations, educators, welfare workers and others.

We have an 8x10 foot screen in a hall that is 60 feet long. What lens should we use to get the best image possible under these conditions?—A. W., LANSING, MICH.

For motion-picture work a 5-inch lens with a 60-foot throw will give you a picture 7x10 feet. For projecting slides, use a 15-inch lens.

There is a very useful chart answering just such questions that can be found in practically any text on

projection. It is also circulated free, in the form of a handy folder, by several of the companies manufacturing projection equipment. The Bausch & Lomb Optical Company and the Projection Optics Company, both of Rochester, N. Y., will be glad to send you one of these ready-reference charts on application.

What is the right thing to do when your film breaks while you are projecting a picture?—B. O., TERRE HAUTE, IND.

The first thing to do, of course, is to stop the machine. Remove the reel that has already been screened and unwind a few inches of film from the reel that is still to be shown. Overlap these two ends about two inches and fasten with two paper clips, one at each side of the strip of film. Do not by any means use a pin for this purpose; pins ruin the film. Wind the film on the used reel until you are well past the breakage point, rethread the machine, and continue with the picture.

Of course, before the film is used again the tear must be neatly trimmed and carefully mended with film cement. The simple instructions for splicing film can be found in any good handbook on the use of motion pictures. Explicit directions were printed in the October 1921 number of this magazine, page 38.

Have movie comedies any place on a school's motion picture program?—M. M. R., TORONTO, ONT.

Children seem to insist upon "funnies" at their recreational programs, such as those given at the after-school shows on Friday afternoons or on Saturday mornings; but certainly comedies have no excuse for being screened at the purely instructional programs that are given during the regular school day.

As a matter of fact, in one school where a comedy film was at the last moment substituted for a travelog that had failed to arrive on schedule, the youngsters openly expressed their disapproval. They felt it was out of place in school hours.



The Films in Review

By M. M. F.

CARDIGAN

TO RECOMMEND highly for promiscuous reading a novel of Robert W. Chambers would seem to indicate a regrettable lapse of literary discrimination. Such is the alchemy of the moving picture, however, that from Chambers' "Cardigan" there has been made a film of quality—a film that can unhesitatingly be commended to all.

The story itself is a vivid, colorful one of the tense and momentous days just prior to the Revolutionary War, and offers a rare opportunity for the visualization of important and thrilling historical events. Secret meetings of the minutemen under the guidance of John Hancock, who signed the Declaration of Independence with such a flourish that George III could read the signature without his spectacles;

the signal swung in the belfry tower of old North Church; the midnight dash of Paul Revere through Middlesex County; and the throbbing hours of that day when the British regulars fell back in disorder before the New England yeomanry and the battle of Lexington became a part of United States history—all flash across the screen in panoramic clearness. The love theme of Chambers' pages—interesting as it may be—is but of secondary importance when compared with the pageantry and verve of history's romance.

The art director has used rare good judgment in his selection and arrangement of backgrounds. Many of the scenes were actually photographed upon the estate of Sir William Johnson, that fine gentleman who lived like an old-world seigneur in the backwoods. The colonial interiors, many of them of a pleasant

homeliness when compared with the too-elegant simplicity and studied naturalness that is often apparent in similar productions, convince with their truthfulness. Realism had not been sacrificed for artistry and consequently the settings possess a genuine dignity and sincerity.

The dramatic contrasts in the picture etch themselves upon the memory and imagination. The flickering Indian council fire, the broad sweep of a manorial estate, the ceremony of a colonial ball, a messenger slipping furtively through the dank forest, the unhuman composure of an outraged Indian chief, the swift movement of battle—all these things make up a film of variety, appeal and strength.

Those who see the picture may consider themselves fortunate to have beheld the history of their country recreated and painted with such telling strokes upon so effective a medium as that of the screen.

Distributed by the American Releasing Corporation.



A DOLL'S HOUSE

Almost any woman would be content to live in a doll's house if she might have two such adorable playthings.

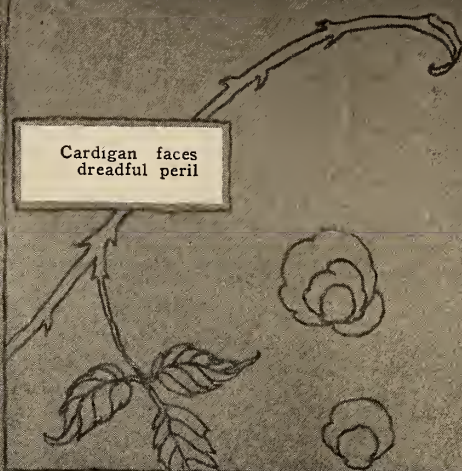
A DOLL'S HOUSE

NAZIMOVA made her first great stage success in "A Doll's House." It is therefore quite fitting that she should seek to repeat this early achievement upon the screen. It may perhaps have been an effort to "come back," for the last few years have witnessed a sad deterioration in the art of this temperamental actress from the Crimea.

It is an indisputable fact that her recent pictures have been dreadful. She has been guilty of accentuating her mannerisms, which are legion,



Cardigan faces
dreadful peril



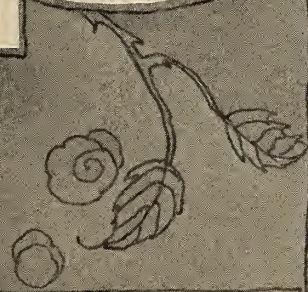
The Cayugas accept the peace belt and renew friendship



Spring—a man, a
maid—and the
old, old story



An ill-timed jest that will find
its echoes in the war-whoop
and in flaming cabins





SMILIN' THROUGH

Not every suitor of so fair a maiden can be successful, and this quiet old garden is soon to be saddened by a tragedy that will project its shadow far into the future.

has overacted to the point of extravagance, and for a long time has given no impression of being the great actress that it is said she once was. She has apparently forgotten that one of the finest arts of the actor is that of repression, and that unevenly elevated eyebrows and tragically contorted features alone do not an actress make.

A *DOLL'S HOUSE* is, however, from many standpoints an excellent film. It is well staged and well directed, maintaining a strong dramatic appeal. Ibsen on the screen is necessarily a difficult matter, for his lines do not always lend themselves easily to pictorial representation. This photo-drama succeeds in getting across very effectively the psychological situation that he has

built up—the situation in which a fatuous, overbearing, selfish man keeps his feeling, thinking wife in what he is pleased to consider perfect happiness.

The play is Nazimova's. She occupies the spotlight almost continually and it is a matter of gratification to report that she shows considerable improvement. She is again, as of yore, overly tragic and her gaze flits too readily skyward, but there are moments when the audience believes in her and she is for the time convincing. The inspiration of the fine acting of Alan Hale as Torvald may be responsible for much of her success. Decidedly Scandinavian in type, he is everything that the difficult rôle demands.

Distributed by United Artists.

SMILIN' THROUGH

THE PEGASUS of the film critic, forced too often to amble along at a slow gait, may well take fresh life and soar into the clouds when a picture like *SMILIN' THROUGH* comes under consideration.

How may one describe the plot?—a story within a story—an old romance trailing its fragrance through the plot like the faint perfume of a pressed flower in a quaint book. It is the tale of a love that lasted through the long years, and of a young love that was nearly wrecked because of an old hate.

The film story is beautifully unfolded; perhaps a trifle too slowly at the beginning, but always beautifully. What is most impressive is the delicacy and the hush of the telling. Events are unreeled like a romance that is told in the still of the twilight. Even the actors have been touched by that subtle charm. Their interpretations show always the reserve and dignity of good breeding, even in the most passionate and tragic moments.

Much of the action is laid in a tranquil garden whose quiet trees have shaded the drama of two generations of love and hate. The photography throughout is of super-excellence, turning the highly artistic and appropriate backgrounds into misty pastels and mellow etchings.

Miss Talmadge handles the two rôles of Moonyeen and Kathleen with remarkable ability, proving beyond a doubt that when she forgets she is Norma Talmadge she is a real actress. Harrison Ford, Alec Francis and Wyndham Standing, who are numbered among the supporting cast, are most convincing and sincere in their work.

The title, with its suggestion of heart-breaking bravery, provides the motif of the play and with its recurrence in caption and title and underlying thought echoes in the memory long after the picture has come to its end.

SMILIN' THROUGH is one of the year's best pictures.

Released by First National.



Keeping Abreast of the Screen

My Boy

The appealing little Jackie Coogan in a play which will delight young and old alike. The story is rather impossible and is, of course, constructed to exploit the ability of this remarkable child. So great is his charm, however, that his continual presence in the plot compensates for all trifling defects. Public thanks are rendered to Mr. Charles Chaplin for having discovered him. (*First National.*)

The Cradle

A study of the divorce problem as it involves the unoffending child. Like all such analytical films, the presentation is the main thing rather than the problem. The presence of a delightful child in the plot does not necessarily mean that there should be children in the audience. (*Famous Players-Lasky.*)

The Crimson Challenge

Dorothy Dalton with bobbed hair, a villain of remarkable villainy, situations of violent impossibility, ordinary photography and a few other trifling defects make up the dramatic ensemble of this picture. Lurid as its title! (*Famous Players-Lasky.*)

Cops

The serious-faced Buster Keaton has a method all his own of going after the laughs, but he gets them. This two-reel comedy is of the slapstick variety, but clean withal and containing more truth than fiction, for it takes the entire police force of a large city to round up an unintentional offender. (*First National.*)

Fool Days

What might be called a successful burlesque of Wesley Barry's *School Days*. The animals employed are as funny as Al St. John, the comedian, and will produce many giggles from the children. (*Fox.*)

The Last Payment

Pola Negri in an extraordinary pictorial mess. Her charms, entirely assumed by the plot, lead strong men

to kill themselves or go blindly out into the night. In order to make the holocaust perfect, Pola conspires with a speeding train to commit hara-kiri. Not worth any one's while. (*Famous Players-Lasky.*)

Miss Lulu Bett

An excellent film dramatization of the book which has delighted so many readers. Lois Wilson as the down-trodden relative relegated to a mid-western kitchen is most effective. Theodore Roberts chews upon his cigar efficiently, and everyone is satisfied. (*Famous Players-Lasky.*)

A Man in a Million

A wholly unnecessary film, endeavoring to capitalize the notoriety from a current newspaper scandal. There is practically nothing in the picture, however, to compensate the morbidly curious for the pain of sitting through its three dreary, wretched reels. The brief glimpses of the fair defendant are long, very long, shots taken through barred windows, and the chief actors, with the exception of Mr. Obenchain, the "m. in a m." are uninteresting sheriffs, deputies and attorneys for the defense. (*Clyde Elliott Corp.*)

Peacock Alley

Peacock Alley, as can well be imagined, is not the most healthful place in which to stroll if you are susceptible to the charms of the flesh. The voluptuous Mae Murray renders her usual exotic and vulgar interpretation of the dancer who is good when everyone else, an adoring hubby included, believes her to be evil. No play for youthful fans. (*Metro.*)

Polly of the Follies

Mildly funny in places, rather impossible and not particularly effective, is this light comedy in which Constance Talmadge takes a very long step from behind the counters of a country drug store to the Ziegfeld Follies. The sparkle of its wit is somewhat faint. Attendance of children upon Ziegfeld Follies is not customary. (*First National.*)

Rent Free

There is probably no other actor than Wallie Reid who could do so little and get by with it so well. The public is apparently glad to pay for the mere privilege of gazing upon his sleepy features. The play is a light thing, warranted not to injure even the babe in arms. (*Famous Players-Lasky.*)

The Ruling Passion

An excellent picture, with one of the finest actors on the American stage showing us how a business man feels and acts when he is retired from circulation. If there were more actors like George Arliss and more pictures like this, it would not take so many derricks to elevate the screen. (*United Artists.*)

School Days

Wesley Barry in an exaggerated story of the schoolroom—a vaudeville schoolroom—with a romance thrown in. When you get through it all, you have learned that to be healthy, wealthy and wise you must not leave school. Some school teachers might deem it best for their unruly charges not to see this mischief-suggesting picture. (*First National.*)

The Sheik

Leave your children at home with their teddy-bears. Such a voluptuous drama is not for immature years. What this picture of desert abduction does not present, your imagination can supply. (*Famous Players-Lasky.*)

Ten Nights in a Barroom

Rank melodrama of the maudlin, sentimental type, with a drunken father, a dying child, gamblers, murder, fire and other hectic ingredients. It holds your attention just as any other dreadful thing would hold your attention. But what puzzles throughout is why the title so untruthfully limits nights in the barroom to ten. (*Arrow-S. R.*)

Turn to the Right

A clever comedy-drama, rather melodramatic in spots. It is refreshingly clean and full of humor and, as one might surmise from its title, gets over a very necessary if a very trite moral. The audience is not compelled to use unnecessary handkerchiefs. If your child does not know what a crook is or understand what it means "to go up the river," leave him in his nursery. (*Metro.*)

The World's Champion

Wallace Reid strolling languidly through Grant Mitchell's good play. The boxing bout, however, is lively enough for any taste. (*Famous Players-Lasky.*)



The Film Field

In offering these selections, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies. In general, films should be viewed by qualified judges before being shown to school children.

NATURE STUDY AND OTHER SCIENCES

BABY SONGBIRDS AT MEAL-TIME—At this time of year, when the interest in birds is renewed, this film makes a particularly pleasing selection. It is planned not as a technical study in ornithology but as a delightful little nature sketch, showing parent birds feeding their nestlings. Among the birds depicted are the sparrow, linnet, canary, bullfinch, chaffinch, brown linnet, titmouse or chickadee, long-tailed tomtit, European warbler and marsh wren. (*p* and *d*, Pathe.)

PREVENTING SPREAD OF THE GYPSY AND BROWN-TAIL MOTHS—Five reels have been given to these pests in all the stages of their life cycle, their depredations on trees in New England, and methods of fighting them. Also treated are inspection of timber to prevent the

caterpillar from traveling, the spraying of trees, and the propagation and spread of a parasite which feeds on moth larvae. A one-reel popular condensation of this subject has also been made. (*p* and *d*, U. S. Dept. of Agric.)

FOR THE GEOGRAPHY CLASS

ALONG THE ITALIAN COAST—The Gulf of Genoa and its immediate vicinity claim particular attention since this little town, the birthplace of Columbus, has become the scene of a conference in which all the world is interested, even though America did not accept the invitation to be present. Views of Oneglia, Poggio, Arma, San Remo and many other delightful Italian pleasure-resorts are shown in succession. The tinting and coloring give a touch of realism to the scenes. (*p* and *d*, New Era Films.)

THE SILVER HARVEST—Although "The Silver Harvest" is essentially a travel reel, it contains a complete survey of the sardine industry as operated along the coasts of Portugal and France. Picturesque scenes showing the sardine boats along the harbor fronts with their nets dragging introduce the subject. The little silver fish are shoveled into baskets and carried to the factory. Here each step in the canning process is clearly pictured as the fish are washed, salted, cleaned, smoked and packed in the little tin boxes. The natives in their strange costumes give the film an added touch of human interest. (*p* and *d*, Educ. Films Corp.)

VISTAS OF THE HOLY LAND—Churches, Sunday-schools and history classes will find entertainment and instruction in these Kineto pictures of the Tower of David, the Garden of Gethsemane, the Wailing Wall, the River Jordan at the point where the Israelites are said to have crossed the Wilderness into the Promised Land, the site of the Temple of Solomon, and scenes of modern Jerusalem. (*d*, Kineto Co. of Amer.)

FOR THE HISTORY CLASS

RAID OF ZEEBRUGGE, BURR'S NOVELTY REVIEW—A series of pictures from the pen of Dudley Buxton, one of England's best-known animation artists, includes the raid of the famous submarine base, Zeebrugge in the English Channel. Mr. Buxton has long been a student of naval warfare and in these animated drawings it is said that he has given faithfully every detail. Each ship which took part in the raid is shown also on the screen. (*d*, Affiliated Distributors, Inc.)

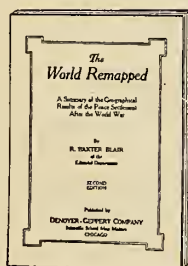
RAILROADS IN UNITED STATES HISTORY—The harnessing of steam to push boats was soon followed by its application to the task of drawing stage-coaches on wooden tracks. Such was the genesis of the great railway freight and passenger service of the United States of today. The main phases of this development, and their importance in our history, are visually emphasized in this reel. (*p* and *d*, Society for Visual Education.)

FOR THE LITERATURE CLASS

LORNA DOONE—The lovers of this novel, one of the most popular and enduring in English literature, will be interested in the production of its most dramatic scenes on the screen. This picture, under the direction of Maurice Tourneur, is now in the process of making. Madge Bellamy plays the title rôle of Lorna, Frank Keenan is the picturesque chief of "those

Worth Its Weight in Gold!

Yours for 20c. Send stamps or coin.



The World Remapped

By R. BAXTER BLAIR

An 80-page book summarizing the changes in World Geography by continents. Every teacher of geography and history should have it on her desk for ready reference.

WHAT OTHERS SAY:—

"It is a monument of thorough and conscientious work, and more complete and up-to-date than anything else I have seen on that subject. It will help teachers greatly."

USE COUPON

Denoyer-Geppert Company
Scientific School Map Makers

5235-5257 Ravenswood Ave.

Chicago

Name.....
Grade.....
Address.....

(V E 5-22)

Doones of Bagworthy Forest," and John Bowers, the popular leading man, appears in the part of the stalwart hero, John Ridd. (d, First Nat'l.)

JACK AND THE BEANSTALK — The venturesome Jack, the wonderful beans that grow up overnight, the giant's castle, the great giant and his wife, the hen that lays the golden eggs, the harp that talks to its master—all appear in two reels of film just as they do in the story-books. Clever double-exposure photography makes Jack appear very tiny, whereas the giant looks enormous. Childhood would scarcely be complete without the tense moments of this thrilling tale, and surely its visualization will be an added joy for the little ones of today. (d, Henry Bollman.)

HOW IT IS DONE

OFFICIAL URBAN MOVIE CHATS—The latest Urban release rivals the "Etiquette Column" of the women's magazines; it demonstrates just how one should receive a guest, how to walk and sit and stand, how a man should help a lady board a street car, and other little things that enter into correct social manners. (p, KinetO Co. of Amer.)

GOLF—An easy way to learn to play golf. If it does not actually teach you, this slow-motion picture will at least help. The ball is struck, then the speed is reduced and the slow-motion camera reveals every detail of the stroke. The twist of the wrist is illustrated in performing a long drive. A short drive, a bunker stroke and many other tricks of the game are depicted slowly on the screen. (d, Educ. Corp. of Amer.)

Producers and Distributors

Affiliated Distributors, Inc.,
133 West 44th St., New York City.

Artclass,
New York City.

Henry Bollman,
66 W. 44th St., New York City.

KinetO Co. of America,
71 W. 23rd St., New York City.

New Era,
804 S. Wabash Ave.,
Chicago, Ill.

Society for Visual Education, Inc.,
806 W. Washington Blvd.,
Chicago, Ill.

U. S. Dept. of Agriculture,
Washington, D. C.

THE MOTION PICTURE—YESTERDAY AND TODAY

(Continued from page 259)

where the presence of the company was tolerated.

The First One and Three-Reel Features

When Edison produced "The Great Train Robbery" he set all good citizens agape. This epoch-making film was 800 feet in length and cost all of four hundred dollars. When one is informed that the only interior setting used in this picture was that of a corner in a railway station, the reason for the low cost of production is somewhat evident. This picture, which was an adventurous plunge for its producers, realized a profit for them of over forty thousand dollars.

The first long picture ever produced was the Passion Play in three reels. This picture was made by the progressive manager of the Eden Musée and was staged on the roof of the Grand Central Palace in New York City. It delighted its audiences and proved a popular success, indicating that the motion picture was more than just a weird passing fad.

A Miracle of Growth

The motion-picture industry has never remained static. It grew and continues to grow overnight. Those

CLASSIFIED ADVERTISING

AGENTS AND SALESMEN

\$100 weekly possible through our exclusive representative plan. Fastest selling Ford accessory on market. "Masco" Splash Fender for front of Ford car eliminates rattling of front fenders, prevents radiator, lights and front of car from becoming mud-splashed, induces greater volume of air into radiator, reflects lamp's rays onto road in night driving, and beautifies lines of car, putting Ford car into higher-priced class. The Ford car being the only car without a splash pan protection, every owner wants this essential attachment. Any one can attach fender in few minutes. Retails at \$6.50. Send \$4.00 for agent's sample and contract application for territorial rights. Give references. Mayer Auto Accessories Corporation, Manufacturers, 333-335 Washington St., Buffalo, N. Y.

FOR SALE—SLIDES

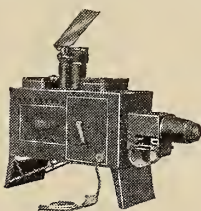
SLIDES — SLIDES — SLIDES — SLIDES —MADE FROM anything and everything. S. Leon & Bro., Makers of Hi-Art Durable Lantern Slides for every purpose. 207 West 48th St., New York.

FILMS

FILMS FOR RENT—Suitable for school, church and social uplift societies. One dollar per reel. Write for list. Sanor Film Company, Kankakee, Illinois.

who went early into the business were forced to continual business readjustments and to continually expanding ideals of what might be achieved. A decade has seen the industry grow to be the fourth largest in the United States. Studios such as the Black Maria have been replaced by entire cities devoted to motion-picture production. It is said that Griffith's first production in 1908 cost eighty dollars. Today we have films like "Orphans of the Storm," costing something over a million dollars to produce.

How such pictures are made is reserved for discussion in the next article of this series.



POST CARD PROJECTION

also

Pictures, Reading Matter and Lantern Slides

SPENCER DELINEASCOPE MODEL 3

Possesses many new and original features. Transposing device for handling the lantern slides. Dissolving view on the screen with but **one** outfit, not **two** as in others. It is a perfect Stereopticon, right up to the minute.

Catalogue K-16 describes it.

SPENCER LENS COMPANY
BUFFALO, N. Y.

Correct English—How to use it

JOSEPHINE TURCK BAKER, Editor
A Monthly Magazine—\$2.50 The Year

Send 10 Cents for Sample Copy to

Correct English Publishing Company
Evanston, Illinois

SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics and Health and Sanitation are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

*Each title is a single reel unless otherwise indicated.
All films are printed on non-inflammable stock, standard width.*

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands

Nature Study

Where Plants Live
The Monarch Butterfly
Samia Cecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

**For prices and other details regarding SCHOOLFILMS
write direct to headquarters**

The Society for Visual Education, Inc.

806 Washington Blvd., Chicago

220 W. 42nd St., New York

**Printing
and
Advertising
Advisers**



**Day and Night
Service
All the Year
Around**

*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed it is our opinion you have not done your duty by your institution or yourself until you have learned about the service Printing Products Corporation gives and have secured prices.

*We ship or express to any point
or mail direct from Chicago*

Make a Printing Connection with a Specialist and a Large and Reliable Printing House.

You Secure From Us

Proper Quality—Quick Delivery—Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of "Visual Education"
what they think of our service and prices.*

PRINTING PRODUCTS CORPORATION

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

Artists—Engravers—Electrotypers
English and Foreign Languages

Polk & La Salle Streets

CHICAGO, ILL.

TELEPHONE
Wabash 3380
Local and Long Distance

*The first requirement for safety in
Portable Projection is*

EASTMAN SAFETY FILM

The words "EASTMAN" "KODAK"
"SAFETY" "FILM"—stenciled in black
letters at ten inch intervals in the transparent
film margin—identify it for Eastman Film
quality and Safety Film safety.

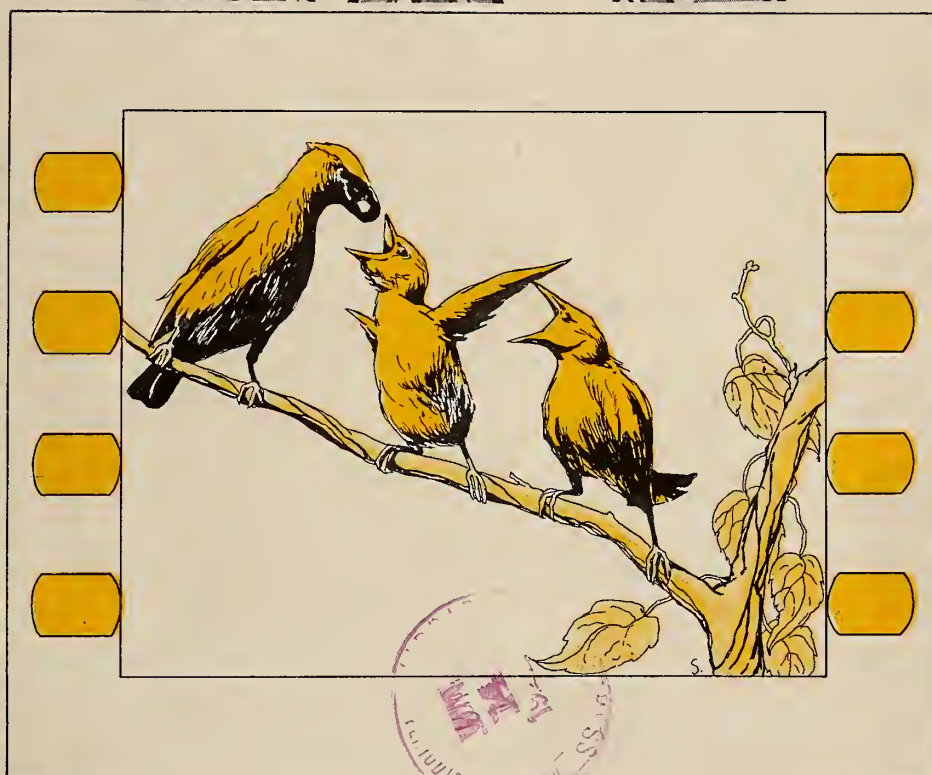
Furnished in two widths, $1\frac{3}{8}$ inches and $1\frac{1}{10}$
inches, Eastman perforation.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

VISUAL EDUCATION

JUNE 1922

15cts • 1⁰⁰ a Year



THE MOVIE PROBLEM
HULL HOUSE

A Talk with Jane Addams

We Give Portable Projectors

FREE

TO

**SCHOOLS, CLUBS, CHURCHES
AND INSTITUTIONS**

VISUAL EDUCATION has developed a plan which will enable any school, club, church or institution to have a splendid motion picture projector of its own.

MOST PERFECT PROJECTORS MADE

The projectors we are giving are the finest made. They are complete with motor, instantaneous focus and all the other latest improvements, and the mechanism and controls are so simple that anyone can operate one.

SEND FOR BOOKLET

AND TERMS OF OUR OFFER

Send at once for illustrated booklet describing our projectors, and for full details of our free offer.

VISUAL EDUCATION

**806 W. Washington Boulevard
CHICAGO ILLINOIS**

VISUAL EDUCATION

Projector Department

806 W. Washington Boulevard
Chicago

Please send me illustrated booklet describing the projectors and details of your plan whereby we can obtain one free.

Name.....

Street No.....

Town.....State.....

DO YOU OFFER

your students

Vocational Guidance

or

Do your students find what work they are best suited for by experience—the slow and painful teacher?

Do they try all the things they are **not** cut out to do to find the one that was intended for them?

Natural tendencies, strong points, likes and dislikes, can be read from the physical form and color. This is Morphological Character Analysis. With the knowledge of peculiar natural qualities of the child, careful directions for vocational guidance can be given. Success can be attained along the line of least resistance.

How would you like to read answers to these questions:

1. "Where do I fit in?"
2. "How to read character at a glance?"
3. "How to decide my vocation?"
4. "Which is my line of least resistance to success?"

These questions will be answered—and many more—in a series of articles in **THE BUSINESS PHILOSOPHER**. The first appears in the May issue.

You may have a free copy of the May number—no cost or obligation—just send a card for your copy.

Address

The Business Philosopher

Monroe Ave. and Second St.

Memphis, Tennessee

JUN 12 1922

©C18529327

Visual Education

A MAGAZINE DEVOTED
TO THE BUSINESS OF
AMERICAN EDUCATION

Rollin D. Salisbury, President
Forest R. Moulton, Secretary
H. G. Bullock, Business Manager

Harley L. Clarke, Vice-President
Wyndham Phinny, Adv. Manager

William Chandler Bagley, Chief Editorial Writer
L. M. Belfield, Managing Editor



Subscription - - - \$1.00 a Year
Foreign Countries - - - \$1.50
Single Copies - - - 15 Cents
Back Numbers - - - 25 Cents

VOLUME 3

JUNE 1922

NUMBER 6

In This Number:

OUR MOVIE PROBLEM AT HULL HOUSE—An Interview with Jane Addams.....	283
<i>Elizabeth Wigginton</i>	
VISUAL EDUCATION ON WHEELS—The St. Louis Educational Museum (Part I) ..	285
<i>Jean Ramsey</i>	
FILMS USED AT "BOSTON TECH" FOR TRAINING HEALTH TEACHERS.....	287
VISUAL EDUCATION BASED ON AN INTELLECTUAL CLASSIFICATION (Part I).....	288
<i>Hugo Westerberg</i>	
THE MOTION PICTURE—YESTERDAY AND TODAY (Part IV).....	290
<i>Mary McKenzie French</i>	
STAY-IN-SCHOOL ARGUMENTS VIA THE SCREEN.....	292
MORALITY AND THE MOVIES—Editorial.....	294
<i>William Chandler Bagley</i>	
POND AND STREAM LIFE AS SHOWN BY MOTION PICTURE.....	295
RADIO BROADCASTING—What Happens at the Station Where Musical Programs Are Sent Over the Ether Waves.....	298
<i>Wilson J. Wetherbee</i>	
FOR BOYS AND GIRLS.....	300
<i>"The Bachelor Daddy"—The Story Retold for Children</i> <i>The Picture Hour (A. M. Willard's "The Spirit of '76")</i> <i>What to Look for Out-of-Doors in June</i> <i>A Visual Demonstration That Saved Lives</i>	
THE FILMS IN REVIEW	306
<i>Silas Marner—Jungle Adventures—The Gray Dawn—Pond and Stream Life</i>	
KEEPING ABREAST OF THE SCREEN.....	309
<i>Brief Comments on Current Films for the Special Information of Parents and Teachers</i>	
THE FILM FIELD	310

Copyright 1922, by the SOCIETY FOR VISUAL EDUCATION, Inc., Chicago

FORECAST FOR JULY

Taking the Movie to the Farmer
The work which the portable projector and the agricultural film are doing to carry the gospel of better farming into the most isolated communities.

Film Settings That Teach History

A composite page, drawing upon familiar films, picturing the screen's magic power to transport us into the very spirit and atmosphere of the past.

More About St. Louis' Unique School Museum

Concluding the article begun in this issue, and covering such details as the circulating of simple scientific apparatus to give concreteness and interest to lessons in physical geography and elementary physics.

To Mexico Via the Screen

Glimpses of our picturesque neighbor to the south, clipped from a new motion-picture study of Mexico City and its environs.

Visualizing the Marketing of Farm Products

Caroline B. Sherman, of the Bureau of Markets and Crop Estimates, pictures various Department of Agriculture exhibits dealing with farm subjects, and tells how they were put to work over a circuit of agricultural colleges.

Tenderfooting Through Glacier Park

This happily illustrated article by A. E. Demaray, and another on "Vitalized Agriculture," announced for June but held over for space reasons, will appear in the special July-August number.

Published monthly by the Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 West 42nd Street, New York



© K. V. Co.

BUFFALO, YELLOWSTONE PARK

*Interest
Your
Pupils*

*In Spite of
Spring's
Distractions*

THE KEYSTONE SYSTEM FOR VISUAL EDUCATION WILL HELP YOU

600 stereographs—bi-nocular photographs showing depth, distance, perspective—used a few each day, make the lesson enjoyable.

600 lantern slides, duplicating the stereographs, furnish review material.

Slides and Stereographs arranged in convenient cabinets.

A Teacher's Guide, fully indexed and cross-referenced, points out several thousand classroom uses.

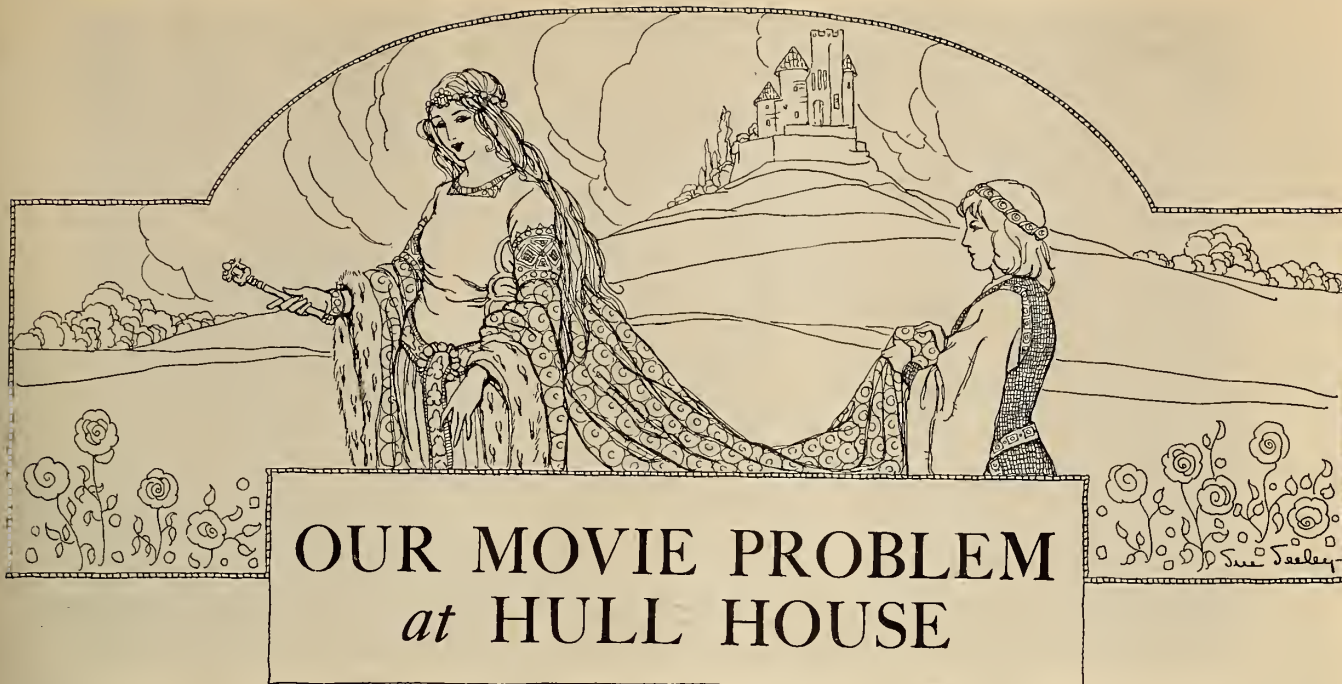
Write for classroom demonstration.

KEYSTONE VIEW COMPANY, Inc.

*"Originators of Systematized
Visual Education"*

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*



OUR MOVIE PROBLEM at HULL HOUSE

*An Interview with Jane Addams on
the World's Hunger for Romance*

By ELIZABETH WIGGINTON

ONE would scarcely expect the wise founder of Hull House, with her keen insight into the human heart and her wide experience in dealing with people of all classes, to condemn the "movies" in wholesale fashion or to forget the joy they bring into lives that are drab and empty.

The evil of many of our movies of today, insistent and glaring, Jane Addams does not of course ignore: an evil sufficient, surely, to keep those who would counteract it eternally on the alert to provide more attractive entertainment which is clean and wholesome. But in her opinion the criticism of movie evils has been overdone. In films, as in everything else, says Jane Addams, we have both the good and the bad. She puts the case for motion pictures in this wise:

"The theater is the only place where multitudes of young people can satisfy their craving for a nobler concept of life than that which their own poor surroundings afford. Thousands of boys and girls in every large city find the 'show' the only road which leads them out of the

drab commonplace into the realms of romance and mystery. In a very real sense the drama, even in its cheapest presentations, is the only avenue for art open and within their reach. The insistent demand for 'a show that is different from life' indicates something of that great hunger for beauty and poetry, the depth of which few of those who criticize the movie habit stop to fathom. In the last analysis it is but a blind and primitive reaching-out in the direction of culture, an attempt to slake the thirst for art, romance and adventure which is inherent in youth."

A Plea for Historical Films

"Why don't we have more of the great romances of history on the screen?" demands Miss Addams, with her very keen sympathy with young people and their craving for some of the poetry and color of life. "Historical drama would be educational as well as entertaining. Take, for example, the novels of Victor Hugo. Why should we not have more good pictures on subjects of this type?"

Speaking as a settlement worker and not from the viewpoint of an

educator, Miss Addams makes a plea for more romance interwoven with the educational data even of films made specially for the classroom.

"Even educational pictures need not be all information," she urges. "Everyone likes a story, young and old alike. I know an old Scotch woman who goes to a movie show every night in the week. She may reserve one evening for prayer meeting, but for the other nights she has her own seat in the theater. Because of her regular attendance, she is given a special price of fifteen cents for all tickets, even including the higher-priced programs."

Love of Romance an Impelling Force

In one of her books, "The Spirit of Youth and the City Streets," written at a time when the cheap shows of five-cent theaters were luring boys and girls into a garish world of make-believe, Miss Addams tells of a group of young girls who reluctantly refused an invitation for a spring day's outing in the country because the return on a late train would have compelled them to miss one evening's performance at the theater. Much as they wanted the

day in the country, they found it impossible to tear themselves away not only from the excitements of the theater itself, but from the gaiety of the crowd of young men and girls invariably gathered outside discussing the sensational posters.

"A steady English shopkeeper complained that unless he provided his four daughters with money for the five-cent theaters every evening they would steal it from his till, and he feared that they might be driven to procure it in even more illicit ways. Because his entire family life had been thus disrupted he gloomily asserted that 'this cheap show had ruined his 'ome and was the curse of America.' This father was able to formulate the anxiety of many immigrant parents, who are absolutely bewildered by the keen absorption of their children in the cheap theaters. This anxiety is not, indeed, without foundation."

Mental Hunger as Real as the Physical

But the remedy is not to eliminate the theater. It is far better to provide the right quality and quantity of entertainment. For the child whose imagination has not been cultivated, the movies satisfy an insatiable desire for adventure in the wide world and for glimpses of a realm more noble and beautiful than the cold, drab realities of his everyday surroundings. The flights of fancy which the more fortunate boy takes while reading Homer or Stevenson are supplied by motion pictures to hosts of others. Miss Addams tells of all sorts of pilferings, petty larcenies and even burglaries due to the never-ceasing effort on the part of boys to procure theater tickets. She says:

"I also recall indirect efforts toward the same end which are most pitiful. I remember the remorse of a young girl of fifteen who was brought into the Juvenile Court after a night spent in weeping in the cellar of her home, because she had stolen a mass of artificial flowers with which to trim a hat. She stated

that she had taken the flowers because she was afraid of losing the attention of a young man whom she had heard say that 'a girl has to be dressy if she expects to be seen.' This young man was the only one who had ever taken her to the theater, and if he failed her she was sure she would never be able to go again. She sobbed out incoherently that she 'couldn't live at all without it.' Apparently the blankness and grayness of life itself had been broken for her only by the portrayal of a different world."

The Magic of the Stage

For many years praiseworthy amateur performances have been given in Hull House theater, and in numerous cases the young people of the neighborhood have themselves been the actors. Even when difficult plays, far over the heads of little children, were dramatized, they would clamor to be given a part.

"Quite aside from its educational possibilities," comments Miss Addams, "one never ceases to marvel at the power of even a mimic stage to afford to the young a magic space in which life may be lived in efflorescence, where manners may be courtly and elaborate without exciting ridicule, where the sequence of events is impressive and comprehensive. Order and beauty of life is what the adolescent youth craves above all else, just as the younger child indefatigably demands his story."

"Where the Beautiful Princess Lives"

"Is this where the most beautiful princess in the world lives?" asked a little girl, peering one evening into the door of Hull House theater. It had all been too real to her to end with the dropping of the curtain.

The most improbable tales feed the starved imagination of youth. Viewing the deeds of the hero, the boy transplants himself and his prosaic surroundings to a world of his own making. He forecasts his own future, often, as is only too evident, patterning it after mistaken ideals. When he makes the gunman

of the Wild West show his ideal, the influence of the drama is emphasized and we sense more keenly the dire need of supervising the pictures that are offered to youth.

There may be those of puritanical strain and narrow experience who would say there is no such legitimate need to be met—that there is no place in the life of budding youth which cannot be filled with work and lessons. But this is not the attitude of the woman whose humanity has made Hull House a haven of rest and a center of inspirational thought for people of thirty-six different nationalities.

Summer Movies Out-of-Doors

So it is that, in addition to the theatrical programs given in its spacious theater, Hull House has its portable projector and occasionally rents suitable films for some special entertainment. The high rental cost of good feature pictures limits the number of screen entertainments which the various settlement clubs are able to give. Sometimes the donations of friends for this purpose prove a boon to the committees on recreation. Lacking this material, some of the many clubs of young people, drawn together by common interests, go to a "show" *en masse*. But these are rare occasions, and come to pass only after an advance guard has reconnoitered and declared the program wholesome and worthy of the attendance of a club from Hull House.

The possibility of giving outdoor movies this summer appeals to Miss Addams strongly. The idea is to put up a sheet on the outside wall of a building facing a street where there is little or no traffic, thus enabling people of the neighborhood to view pictures in comfort on hot summer evenings. Miss Addams was enthusiastic over the possibilities of it all. Of course, it was just an embryo plan—but let us wait and see what develops. The creator of Hull House and her staff of earnest co-workers have made bigger dreams than that come true!



Studying Indian life with the visual materials sent by the Educational Museum.

Visual Education on Wheels

"Take the World to the Child" Is the Motto of the Educational Museum of the St. Louis Schools

JEAN RAMSEY
Chicago, Illinois

UNLIKE most of our great cities, St. Louis has no public museum. Yet boys and girls who attend St. Louis' public schools have access to an everyday museum so broad, far-sighted and unique in its plan, so perfectly correlated with the course of study, so entirely efficient in its operation, that for them the ideal of "visual education" is being realized to an extent that at the present time is unparalleled in the country—perhaps in the world.

It is not the sort of museum with which most of us are familiar: a lordly building housing magnificent exhibits encased in glass or jealously guarded by "Do Not Handle" placards, to which now and again classes are brought in chattering groups and holiday spirit for a few hours of special study and observation.

On the contrary, the St. Louis Educational Museum is put to work every day in the school year. It is

as much a part of each day's lessons as are the textbooks and the blackboards. It has a central headquarters, to be sure, for administration, storage, repair and display departments, but in its essence it is anything but static. It makes its way into every school in the city, so that John Junior or Mary Louise, without stirring from the classroom, may handle and study and compare its 10,000 exhibits as they arrive in boxes and bottles, jars and cases, bags and packages.

The Museum Travels— Not the Pupils

For St. Louis has literally put its educational museum on wheels. Two large motor trucks are kept busy all day long maintaining a regular delivery service, each school having a

specified day once a week when the new material ordered by the teachers is delivered and the previous week's exhibits are taken up for return to the central building, where they are inspected, cleaned, and, if necessary, relabeled in readiness for shipment to another school.

Such a system makes it possible for every teacher, by planning her work ahead, to have at her command



"BRING THE WORLD TO THE CHILD"

These 2-ton motor trucks last year carried to the schools of St. Louis nearly 80,000 groups of museum material, ranging from a slip of rice paper and a sample of linseed oil to a Navajo blanket and a stuffed eagle, from a charmingly illustrated geographical reader to a motion-picture film on the cotton industry.

for the teaching of geography, history, nature study, reading and elementary science just the visual material she wants to vivify and simplify the lesson, and to have it at just the time she desires to use it.

A World's Fair Origin

"Wonder is the beginning of knowledge." That significant inscription appeared over the entrance to the educational section of the Government Building at the Louisiana Purchase Exposition, which in 1904 gave St. Louis a magnificent albeit temporary public museum. The schools were quick to take advantage of the tremendous educational opportunities which the fair offered them, and week after week saw groups of children visiting the exhibits under the guidance of their teachers.

"It was wonderful to see how the boys and girls brightened up," says Carl G. Rathmann, Assistant Superintendent of Schools, "after one of these visits which transported them to distant lands and made real people, industries, products and animal life which before had been mere names on a printed page. Pupils who had never shown more than ordinary interest in their school work became waked up, alive, literally hungry for knowledge."

During the exposition Mr. Rathmann was in daily charge of the schools' exhibit. As the fair neared its end and the superintendent and his associates realized what the loss of this vitalizing educational influence would mean to their boys and girls, Mr. Rathmann would approach the various ex-

hibitors and ask: "What are you going to do with this material of yours when the exposition closes? Do you want it? Why not give it to me to give to the school children?"

The appeal bore rich fruit, for from the nucleus formed by these donated exhibits, coming from every part of the world, has grown the great Educational Museum of today. Other museums, government departments, and commercial firms responded generously to the call for co-operation. The Board of Education appropriated a sum sufficient to cover operating expenses and the cost of new and duplicate collections, and in October, 1904, the museum began its service.

How the Museum Has Grown

During the first year, 1905, collections to the number of 5,000 were sent out. In 1910 nearly 30,000 deliveries were made. In 1920 there were 80,000 collections brought to the city's schools.

Today the museum owns 1,200 original collections and 10,000 duplicate collections; 20,000 lantern slides and 25,000 stereographs; 1,200 large colored wall charts and

many thousands of photographs and booklets; 800 phonograph records; 250 reels of motion pictures; a Teachers' Library of 20,000 volumes on psychology, pedagogy, science and literature, and a large Traveling Library of supplementary readers for children's use, this collection comprising thirty copies of each book. It occupies an entire building—a remodeled school—and engages the services of a considerable staff of workers.

The Educational Museum is in direct charge of Miss Amelia Meissner, the curator, and under the general supervision of Mr. Rathmann. To the whole-hearted zeal and rare executive ability of these educators is due no small measure of its wonderful growth. The catalog of the circulating collections, with its systematic arrangement, thorough correlation of material and brief descriptive notes, is in itself a document in evidence of the painstaking care and wise, forward-looking planning that from the beginning have gone into the upbuilding of the museum.

Visualizing a Lesson on "Rubber"

Let us assume that Room 6, which has been studying tree products, has had "rubber" assigned as the special topic for the week. Tuesday is the regular delivery day for this particular school. On Friday Miss Allen, the teacher, indicates on an order blank, such as that illustrated here-with, material she has selected from the catalog to aid her in planting in her pupils'

St. Louis, _____, 192

EDUCATIONAL MUSEUM
St. Louis Public Schools

Kindly send the following collections to the _____ School

We shall take proper care of the material, and return it in good condition.
Respectfully,

PRINCIPAL

COLLECTION No. _____

PLEASE LEAVE THE SPACE BELOW TO BE FILLED IN BY PACKER

Form 7-5, July 20, 1914

ORDER BLANK

This is the order which the principal sends to the museum by way of requisitioning pictures, collections, books, slides, films and stereographs which his teachers have selected to vitalize next week's lessons. The museum points proudly to a record of 85 per cent plus in filling its orders.

EDUCATIONAL MUSEUM
ST. LOUIS PUBLIC SCHOOLS

Sent _____, 192

To _____ School

Collection No. _____

CONSISTING OF _____

Record Container _____
Assembling Box _____
Individual Boxes _____
Packaging _____
Relief Charts _____
Chart Rep. _____

Received by _____

Form 7-6, Mar. 28, 1914

DELIVERY SHEET

On this sheet a typewritten record of what has been sent to the school is made out in triplicate—one for the museum, one for the principal's file, and the third for the school's bulletin board. The teacher or pupil in charge of the work carefully checks the shipment and notifies the museum of any shortage.



CHART OF LIME TREE

There are 1,200 of these large colored wall charts, devoted principally to geography and nature study, and they are in constant demand.

minds vivid and lasting pictures of how and where rubber is secured and how the raw product is elaborated into various commercial forms. Her order goes to the principal, and through him is transmitted to the museum.

On Tuesday, without fail, all material requisitioned for the school is delivered by motor truck and checked and receipted for by a teacher or an upper-grade pupil charged with this duty.

The shipment is readily unpacked, as only tissue paper is used, for, says Miss Meissner, "we would rather have an occasional bottle break in transportation than put teachers to the annoyance of using excelsior packing."

In Miss Allen's collection there will be muslin sacks holding specimens of crude rubber in various stages of preparation, together with samples of various commercial products made from rubber, such as bottle stoppers, auto tires, rubberized fabrics, garden hose, rubber toys, heels, boots, combs, etc. There will be a large colored wall chart picturing the rubber tree, with details of leaf, bud, blossom and bark. There will be a set of stereoscopic views illustrating, with the realism peculiar to the three-dimensional stere-

ograph, the geography, the people, homes, costumes and customs of the far-away lands from which the world gets its rubber supply. As a rule there are from ten to fifteen different views in each collection—sometimes fifteen duplicate copies of a single view—and as each school at the beginning of the year is supplied with fifteen "hand scopes," the pictures may be studied simultaneously by a large group of pupils.

There will be a set of lantern slides as well, permitting Miss Allen to picture these tropical and subtropical regions on the classroom screen. A motion-picture film may also be included to visualize, through its double magic of lifelike motion and photographic fidelity, every phase of the industry, from the gathering of the milky sap to the manufacture of rubber products. The museum has a few portable projectors available for the use of such schools as are not yet provided with a motion-picture machine of their own, although 70 per cent of the schools in St. Louis are now equipped to make use of educational films.

In addition, the shipment will probably contain a number of reference books which Miss Allen wants

(Continued on page 305)

for personal research, as well as thirty copies of a supplementary reader whose chapters on the rubber industry the children will devour as eagerly as any story-book. Advertising booklets secured from commercial firms engaged in the manufacture or sale of rubber products supply the final link with the child's own world of people and things.

Exhibits Meant to Be Handled

Two important and delightful things about this museum are, first, that it stands ready to furnish the teacher just what is wanted just when it is needed; second, that practically none of the material is in such form that it cannot be taken out, handled and compared with other material under discussion. Everything is intended for hard use.

"We want pupils to get in close, personal touch with all these things," the curator explains. "When it comes to the study of cotton, for example, we let each child handle the boll and try to pick out the seeds. There is no better way to make children realize just what Whitney's cotton gin did for this important industry. We have these cotton bolls shipped to us in large quantities, and a fresh supply is always put into

Films Used at "Boston Tech" for Training Health Teachers

THE summer course of study in public health and health education offered last summer for the first time by the Massachusetts Institute of Technology, proved so successful that it was made one of the regular subjects in the Institute's curriculum. It is now found a second time on the summer calendar, July 10 to August 11.

In the thirty-hour course in Methods of Teaching Hygiene and Public Health in the Public Schools, which will be given under the direction of Professor C. E. Turner, new methods which have been developed in experimental work by the instructor and other health workers in different

parts of the country will be particularly stressed. These methods include teaching with motion pictures, story-telling, scrapbooks, competitions, weight records, etc., with considerable emphasis on the visual aids. The course is planned especially for the benefit of teachers, school nurses who have teaching responsibilities, and teachers of physical education who have charge of classes in hygiene and public health.

Motion pictures and lantern slides will also be used as teaching material in a lecture course on Sanitary Science and Public Health, conducted by Professor Turner and Prof. S. C. Prescott.



Touch Memory Man



Sound Memory Man



Sight Memory Man

Visual Education Based on an Intellectual Classification

HUGO WESTERBERG

Consultant in Industrial Valuation of Men

LIFE itself is the best school and experience may be considered the best teacher. It is also, from an individual's point of view, the field of battle where the decision of personal success or failure is rendered. Therefore some artificial preparation always has proved useful before prospective participants are left to their own resources.

The education of this young humanity probably should have for its aims the developing and improving of such native abilities of man as contribute to the welfare of himself and his kind, and at the same time the controlling of such tendencies as might injure. In the beginning of social life, when desires were satisfied in the simplest way and needs for comfort were few, the training of the young was a comparatively simple proceeding. Modern civilization, on the contrary, is of an extremely complicated nature; the time, gifts and powers of a single individual are not sufficient to master it all and then do his share. It is now clear that in order to get the best results, the purpose and methods of education should vary according to the qualities of the individual.

Tests for Vocational Selection

This is being more and more clearly realized, as is shown by the

many revisions of Binet's scale for intelligence tests which are being devised, not only for pedagogical guidance but also for vocational selection in trades and professions.

These valuations, however, all refer to the general intellect and therefore miss essential problems of conduct. In order to draw attention to their existence, the writer presents a system for the valuation of man intellectually, which perhaps will indicate the true meaning of "visual education," and at the same time the extent to which motion pictures may prove useful in connection therewith.

"Touch, Sound and Sight Memory" Types

In this system an intellectual classification based on sense memory is the foundation for three synthetic human types: the *touch memory*, the *sound memory*, and the *sight memory man*.

A study of the relative ability to acquire knowledge and to perform work in the case of a man equipped only with the sense of touch, a second man with the senses of touch and sound, and a third with all three senses at his disposal, will probably demonstrate the practical importance of the classification. The task at hand is that of a ditch digger who by means of his sense of touch alone

is able to learn to use a spade and dig in a fairly straight line and at about the same depth. When he reaches a point where an outcropping rock blocks the progress of his spade, however, he has to stop or follow its outline, when he will soon have lost his original direction.

A ditch digger who is a sound memory man—that is, who in addition to the sense of touch has the sense of sound as well—is able to dig a more complicated ditch. When he arrives at the rock a command to turn to the left will reach him and he will go on, changing direction each time according to instructions, until the obstruction is passed and the original direction of the ditch is resumed.

Another man who has not only the senses of touch and sound, but the sense of sight as well, can perform work that is possible to neither of the others. His ability to see makes it possible for him to supervise the work of the two others or of any number of men co-operating for a certain end.

Classification Applied to Art

The three classes are still more easy to discern in the field of art, where the workers all receive their raw material through the eye and in the reproduction are free to choose

any or all of the senses as a means of expression.

Of all the impressions crowding in from the outside, the first artist (*Figure 1*) has selected only those of form. If his eyes are normal he is of course not blind to color nor light, but his touch sensations are so overwhelmingly strong that he ignores the others. From the first crude drawings of a child or an un-



FIGURE 1

A copy of Zorn's etching, "Dagmar," in the manner of a touch memory artist.

civilized man working with chalk or charcoal, through smooth-flowing brush work in one color by men of more advanced races, up to the most accurately perceived and delicately delineated presentation in dry-point or etching by members of highly cultured nations, it grows to a real beauty of its own—the beauty of touch sensations.

The second artist (*Figure 2*) has added the reproduction of flat colors translated into values of black and white, in a manner that permits the details of the proceedings to be described in words—that is to say, according to rules. In other words, he has made a constructed picture. This is the melodious beauty of the sound memory artist, in which tones of color and sound are intimately related in the effect they have of causing feelings of pain or pleasure.

The third artist (*Figure 3*) shows a consciousness of both form and color, but no longer as isolated sensations. He sees them as complete harmonies illuminated by light, losing none of the graceful details, nor permitting elements of calculation to spoil the spontaneousness of execution that alone allows his personality to survive in his creations.

The beauty of the sight memory artist is neither the graphic representation of his touch sensations nor a reconstruction of sound impressions, but a mirror image of life itself.

This intellectual classification, distinguishing among men who think and do on the level of touch memory, sound memory and sight memory, will be found applicable to all fields of human endeavor—science, business, law, government, literature, music, and the rest.

Different Education for Different Types

Education may now be seen to have different aims and means for different intellectual classes. With the touch memory man it should consist of muscular training exclusively, serving to develop touch sensations and motor reactions to the highest degree of efficiency, paral-



FIGURE 2

A copy of the same etching in the manner of a sound memory artist.

leled by a strengthening in the right direction of the instinct to choose between good and bad. This is usually spoken of as education of character.

In the case of the sound memory man, the main essentials are the acquiring of information on special subjects having a direct bearing on his trade or profession, together with the learning of as many rules and regulations as possible pertaining thereto. This is the typical education given in present-day schools.

The sight memory man, again, must develop his power of judgment. This means practice in analyzing new problems containing a number of factors having an influence on other than personal questions, and the organization of separate working units for the purpose of co-operation toward some aim advantageous to a community of beings. Education in this meaning of the word is communicated only incidentally in more advanced institutions.

The Film's Outstanding Usefulness

The part motion pictures can play in the education of an ordinary healthy human being, who is a composition of all three intellectual classes, is now more clearly perceived. The film's main value probably lies in the fact that it makes it possible for each of these three classes to pick the information that is natural to it and therefore readily digestible, at the same time granting a certain facility to transfer the thinking over easy grades from one



FIGURE 3

Original etching, "Dagmar," by Anders Zorn.

level to another, either higher or lower. This last—the promotion of a moving intellect—is of great importance in practical affairs because it stimulates the mental growth that constitutes progress.

(To be continued)

The Motion Picture—Yesterday And Today

Part IV—The Modern Moving Picture Studio

MARY MCKENZIE FRENCH
Society for Visual Education, Chicago

NEAR Los Angeles there stands a small city with a population of over 1,500 people. The main boulevard in this miniature metropolis is over six miles long. It has its own gas and electric lighting plants, its own police and fire departments, its own mayor. Within its limits are a hospital, a race-track and a grand stand. There

also may be found carpenter shops, machine shops, dressmaking establishments—many of the industrial activities that mark an enterprising community. And this place is Universal City, dedicated to the sole purpose of making pictures.

Figures regarding the motion-picture industry are astounding in their revelation of its proportions

and significance. In 1920 there were 18,000 theaters in the United States, with a total seating capacity of nearly 8,000,000. There were 5,000 other theaters where pictures were shown daily as a part of the program and there were more theaters under construction, to the number of 1200. The daily attendance for that year averaged about 15,000,000.

It is evident that to show pictures to 15,000,000 people daily means an enormous production. And this is the reason for such communities as Universal City. The small, inconvenient studio of pioneer days has evolved into one of infinite capacity and variety, and the primitive, crude picture of one hundred feet has become the elaborate multiple-reel "feature" of today.

Mecca of Film Producers

Los Angeles has gained international fame as the center of the film industry, about seventy-five per cent of the world's output being filmed in this city and its immediate environs. The topography of this southern California region offers the utmost variety in natural settings. The director in search of suitable location will find sea, desert, mountains, plains, and forests all equally accessible. The most vital reason, however, for this remarkable concentration of industry is the climate. The one great essential for good motion-picture production is sunlight, and in California clear, bright weather may be counted upon during more than three hundred days of the year.

In 1921 there were forty-nine studios in and about Los Angeles, with 175 producing units at work. In 1920 studio payrolls amounted to \$40,000,000 and the amount spent on studio equipment and supplies was \$24,000,000.



A SCENE-PAINTER AT WORK

These men are real artists, and their skill is responsible for much of the successful illusion of the screen.

Courtesy of Goldwyn Pictures

The Studio—a Place of Wonder

A moving-picture studio is a place of continual fascination and surprise. The dramatic art of the screen becomes a business which must be carried on with the utmost dispatch and efficiency. Within the great glass walls of the huge, barn-like structure a dozen or more companies may be at work and many different scenes be in the process of construction or removal. Floor space is so valuable that a director cannot let his set stand any longer than is absolutely necessary; therefore, as soon as the necessary scenes have been taken the carpenters begin to tear down what they have just erected with such skill and labor. For this reason there is continual movement and confusion. Mechanics, carpenters, electricians, stage hands, executives, actors and extras in varied and picturesque costumes, all mingle in what has been characterized as "a human omelet." Underneath the colorful confusion, the kaleidoscopic shifting of groups,

there is, however, a fine organization and system.

Light on the Subject

Visitors to the studio are bewildered by the maze of lighting batteries which are trained upon the sets and upon the faces of the players. Lighting is one of the most important phases of production. The art director must study the effects of different methods of lighting upon textiles, movement and position, for a wrong play of lights may mean wrong emphasis and the consequent failure of a dramatic scene to register. The lights most in use are the arc-lamp, which throws out a blue-white light, and the Cooper-Hewitt, a mercury-vapor light, which gives colors rich in actinic properties.

What are known to the trade as "props"—all the furniture, bric-a-brac, draperies, antiques and curios needed to furnish anything from the humble kitchen of a day laborer to the lofty halls of a ducal estate—are harbored in property rooms which

resemble large department stores. The most up-to-date film companies have every separate piece of property photographed and indexed, so that the art director needs only to order the various items of his settings by number.

What You See and What You Don't See

In each studio are film artisans of infinite skill who can produce anything from battleships to tunnels. They can build papier-mâché models with such incredible accuracy as to deceive a public not always easy of deception. The idea of Rome done in papier-mâché is rather ludicrous, but that perishable material has nevertheless been used to construct such perfect walls and towers that observers have had no difficulty in believing that they were actually seeing the photographic reproduction of the Eternal City. That ship, for instance, which sank in such a realistic manner as to make you gasp with horror and pity, was only a papier-mâché model taking a brief plunge in a studio tank.



IN A MODERN MOTION PICTURE STUDIO

The contrast between the early studios and this complicated interior will serve to bring out the almost unbelievable progress that has been made in the course of a decade. These immense buildings, housing dozens of different "sets," are entirely under glass. Note the elaborate lighting arrangements. Batteries of powerful lamps, suspended from the ceiling, attached to floor standards, or mounted on rolling projectors, make the modern studio independent of Old Sol, at least so far as interior scenes are concerned.

Courtesy of American Film Company, Inc.



A CORNER OF THE PROPERTY ROOM

According to the declaration of the film company, everything from soap to nuts can be found in this place.

Courtesy of Goldwyn Pictures

The scene painters work with canvas nailed to a framework and mounted on a carrier which may be raised or lowered through a slot in the floor while the painters remain stationary. Their work is so cleverly executed that, like that of the carpenters, it also deceives a critical and observing public.

Always the Question of Dress

One of the most alluring places in the studio is the wardrobe. When

it is recalled that sometimes hundreds of extras are employed, all of whom must have a special costume, it can be seen that the wardrobe mistress is one of the most important studio functionaries. Designers of international reputation, assisted by a skilled staff, work continually at break-neck speed. The gowns created for the stars must express their personality, be in harmony with the atmosphere of the

play, and at the same time be several miles in advance of the current style. The camera is too frank to permit the use of cheap fabrics and poor designing; the material must lie in graceful folds and have the proper sheen.

In one studio on the western coast, the wardrobe contains 5000 costumes of various periods, 61,125 hats and 400 swords of different periods. In the moth-proof vault are sabres valued at \$100,000. All of these costumes are carefully indexed and numbered, and a record is kept of their use.

Transplanting Atmosphere

If the director needs the wild beasts of the jungle to fit in with his plot and to create the illusion of a tropical background, it is not necessary for him to travel with his company to Africa or South America. Many of the large studios maintain their own zoos with tender and scientific care.

In Universal City each side of every building represents some different historical period, as do also the bridges and the streets. This rather astonishing architectural variety is planned in order to provide

(Continued on page 311)

Stay-in-School Arguments Via the Screen

ONE of the most difficult tasks confronting the educator is to make young people realize that to achieve success in life they must be prepared—that without a good general education and specific vocational training they will most likely stay at the bottom. The Vocational Guidance Bureau of the Chicago Public Schools is making a very practical and effective use of the visual idea in solving this vital problem.

In order to help boys and girls who are about to graduate from the grammar school "see" that in the high-school vocational courses lies their opportunity to fit themselves for a career, the Vocational Guidance Bureau has developed a series of slides which visualize the activities of the high schools, emphasizing

particularly those which are vocational in type.

These slides and scores of others are shown to groups of eighth-grade pupils during the weeks preceding the close of school, by way of stimulating and giving concrete form to a desire to continue the educational process. A significant increase in the high school enrollment is proving the wisdom of this use of the visual.

The vocational opportunities now available in our big-city schools are surprisingly numerous and varied. In the four-year technical course, for instance, the boy may lay a sound foundation for becoming an architectural draftsman, contractor, machinist, electrician, auto mechanic, architect or engineer. The four-year

science course starts embryo drug-gists, laboratory assistants, doctors or dentists well on their way.

One of the slides pictured on the opposite page shows two girl students of the commercial course making practical application, in a loop department store, and under normal, everyday conditions, of what they have learned in school of the science of salesmanship. Many of the city's shops and stores thus co-operate with the schools by arranging to have students do temporary work on Saturdays, work for which the boys and girls are paid in hard cash as well as valuable experience. Other vocational opportunities for girls are suggested by slides showing the work in millinery, dressmaking, interior decorating, cooking and other studies in the Household Arts group.



GETTING STYLISH CLOTHES AND PROFESSIONAL SKILL AT THE SAME TIME.



LEARNING TO PLAY THE SELLING GAME.

"MULTIPLICATION IS VEXATION-



-DIVISION IS AS BAD -"

FUN ADDING

WITH AN MACHINE!



THE METAL BOILS AND SIZZLES UNDER THE ACETYLENE TORCH.



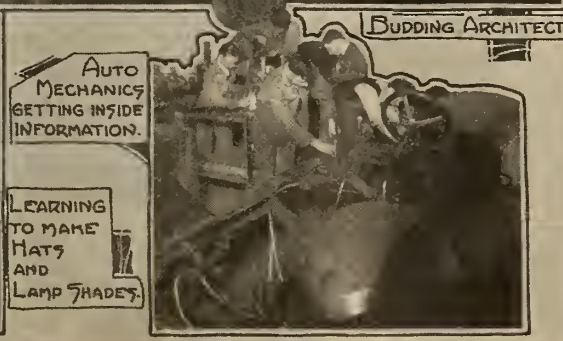
THESE GIRLS WILL NEVER LACK "THE STAFF OF LIFE"!



WIRING AND TESTING MOTORS.



CAREFUL WORK IN THE MACHINE SHOP.



AUTO MECHANICS GETTING INSIDE INFORMATION.

LEARNING TO MAKE HATS AND LAMP SHADES.

BUDDING ARCHITECTS

Morality and the Movies

*Editorial Contribution by WILLIAM CHANDLER BAGLEY
Professor of Education, Columbia University*

THE measures taken by the producers of moving pictures to insure decent moral standards among the players are steps in the right direction. Men and women who are heroes and heroines in the eyes of millions of people—and especially in the eyes of youth—cannot escape a moral obligation that is proportionate to the influence that they exert. “Morality” clauses in contracts and discipline for notorious offenders will doubtless have a salutary effect in keeping the moving picture relatively free from the type of scandal of which we have recently had so disgusting an example.

NEGATIVE measures in themselves, however, will not solve the problem. The demoralizing influence of the visual drama does not lie alone in the sins that some of its well-known “stars” may have committed, outrageous as these are. It rather finds its chief cause in the relative paucity of creative art, coupled with the very great difficulty of developing a technique that is adapted to the unique medium that the screen affords. As a consequence, the wide appeal inherent in the moving picture tends to be exploited along the paths of least resistance by interests that are wholly commercial.

IN THE visual drama as in the spoken drama, the veiled suggestiveness of pose or gesture or title, with its insinuating appeal to prurient interests, exerts an influence that is doubtless far more demoralizing than the portrayal of open vice would be. The latter outrages public decency so quickly and so unequivocally that the force of public opinion can be counted on to suppress it; but the former may be quite innocent in its superficial guise, or even so clothed with outward respectability as ostensibly to “teach a moral lesson.” This is the wolf in sheep’s clothing that lurks in the shadow of the moving-picture theater.

LESS reprehensible but probably quite as negative in its influence is the type of melodrama which makes up so large a part

of the moving-picture programs. This type of melodrama is never “immoral” in the usual meaning of the term. Far from it. It always, or almost always, “teaches a lesson.” Its great fault lies in the fact that often the lesson is not true. It paints life in false colors, not frankly and innocently as does a fairy tale, but insidiously, as fiction masquerading in the garb of truth.

EASILY the most demoralizing force in human life is insincerity. Whether art can or should have a moral purpose is beside the question; there is one form of immorality that it cannot embrace: it cannot be insincere. Beyond this it is clear, too, that art which is truly great is essentially an up-building and not a degenerating force. To clarify and not becloud; to idealize and not brutalize; to enrich and not impoverish; to point up and not down: these are the unmistakable characteristics of all art that is recognized as truly great.

THE deeper moral influence of the visual drama, then, will be made possible, not through negative and repressive forces alone, necessary as these may be in preventing an exploitation of the moving picture by insincere, self-seeking, and even vicious agencies; but rather through the achievements of great playwrights and great players who can give to great themes an appeal that will outrival the appeal of the cheap, the tawdry, the smug, and the suggestive.

THIS is far from an easy task. The paths of least resistance always lead downhill. But does not the unique privilege and the priceless opportunity of the artist lie right here? Is it not his greatest triumph so to portray the ideal that the strength, the beauty and the sincerity of his portrayal will lift men in spite of themselves, in spite of the downward drag of the brute that is in all of us, to a higher plane and a broader vision?

Pond and Stream Life

Inland waters teem with creatures whose lives are as strange as a fairy tale. Many of these fascinating life stories we can read in motion pictures.



Dragon-flies begin life in the mud, as sprawling water-babies. Here, clinging to a reed, is the empty husk of what was once a "nymph." This drab gray armor has just been shed and a gauzy-winged dragon-fly has emerged.



Here is villainy in lovely form. As the dragon-fly zigzags over the pond, relentlessly pursuing midge and mosquito, its great jeweled eyes and rainbow-hued wings flash back the sunshine. It is a true child of the sun.



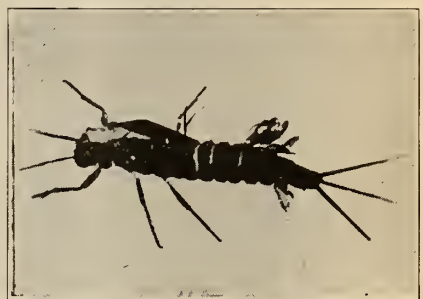
The ten-spot dragon-fly weaves its noisy, rapid, darting flight above the water. It is an inquisitive creature, with a mania for sitting on the end of one's fishing pole. Dragon-flies are often called "mosquito hawks."



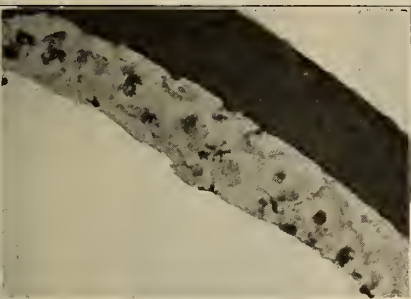
This is the nymph of the damsel-fly. Soon it will leave its haunts in the mud to crawl up a reed, where its nymphal skin will dry and split, freeing an exquisite insect with brilliantly-colored body and iridescent wings.



Damsel-flies are smaller and less swift than their dragon-fly cousins. When at rest they fold their wings together over their backs, whereas the dragon-flies spread theirs as if to be ready for instant flight.



The cast nymphal skins of the may-flies float away on the water like pale ghosts. The may-fly is that gregarious insect you see in great clusters about the street lights in early summer.



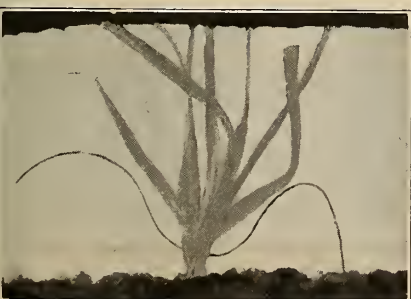
The pond snail glues its gelatinous mass of eggs to submerged reeds and goes its way, leaving nature to do the rest. The picture shows the globules greatly enlarged; in reality they are no bigger than pinheads.



The baby crawfish play close to mother and at the least alarm dart to her side and cling to her swimmerets. She curls her armor-plated tail around them, and zip! they are whisked away to safety under a rock or a leaf.



This caddis-fly larva lumbers about the bottom of the pond, dragging its clumsy twig house after it. Other caddis-worms build houses of tiny scraps of shells, leaves, reeds or pebbles, held together by a tough silk.



The horse-hair snake goes lashing its way through the water like a violently animated bit of thread. This particular "snake" (they are really parasitic worms) grew to maturity in the body of an unfortunate grasshopper.

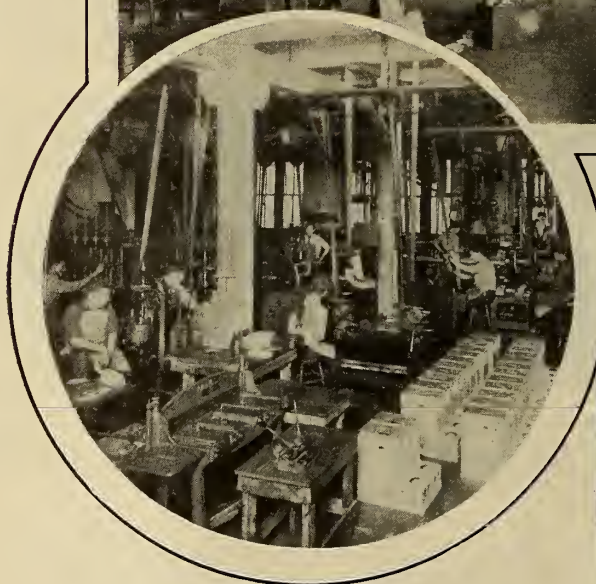


The fat leech can stretch itself out into a thin band, like a ribbon, and swim gracefully through the water with swift, undulating movements. This is not the type of leech which old-fashioned doctors used for blood-letting.



The real villain of the pond is the ferocious water-tiger, larva of the predaceous water-beetle. It has all the sneaking, sinuous movements of the real tiger. Here you see it pursuing a frightened tadpole.

ACME MOTION PICTURE PROJECTOR



Skilled mechanics make parts for the Acme. Material used by these men has been carefully tested. All parts are again inspected and tested before they are assembled in the projector.



Some of the machinery used in making parts for the mechanism of the Acme. Thousands of dollars have been invested in tools and machinery to insure accuracy in this work. The picture at the right shows the tool department.



Draftsmen are constantly at work on improvements in tools and designs that will keep the Acme in its position as the best portable or semi-portable motion picture projector made.

These pictures show how the projectors are made.

They are built in the best working conditions and are of the finest. Materials are of the most severe test and are thoroughly inspected by a team of trained inspectors.

Our

We guarantee every Acme projector to run up under the hardest conditions with brilliant illumination and the finest definition of workmanship or no return.

ACME
PROJECTOR



After the projectors are assembled, they are tested, with both direct and alternating current, for eight hours. This test insures faultless operation of the mechanism.

Every Acme Projector is Guaranteed

PROJECTORS ARE MADE RIGHT

Acme Projectors

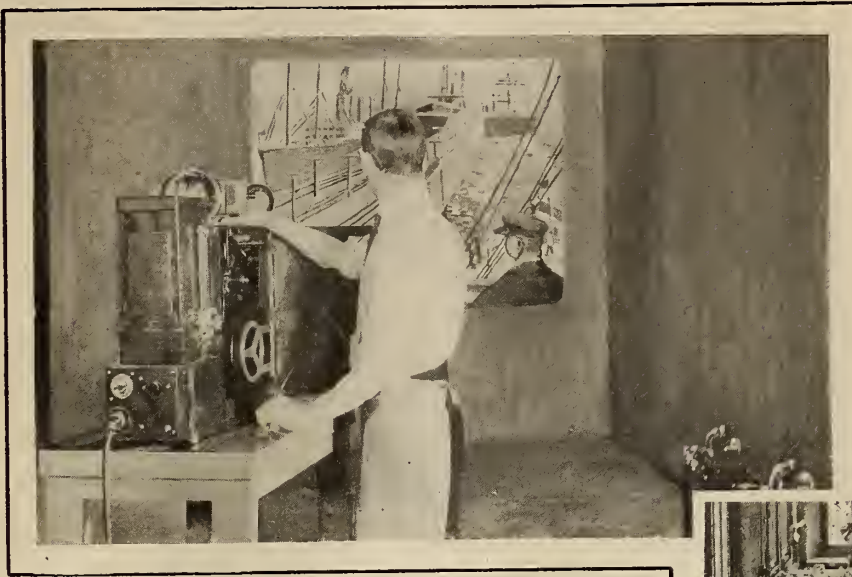
factory where work-
Workmanship is the
are subjected to the
every projector is
tested by a corps
it leaves the factory.

antee

Projector to stand
ge. We guarantee
steady pictures, and
antee against faulty
l imperfections.

ION PICTURE
CTOR CO.

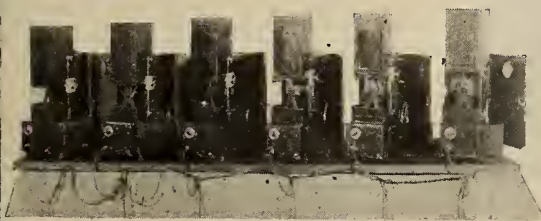
shington Blvd.
ago, Ill.



On the third floor of the factory is a projection room where every Acme is given the final inspection and projection test. No projector is passed in this test unless it projects a rock-steady picture, clearly defined, and with brilliant illumination. The picture at the right shows one of the benches where motors are assembled and tested.



A view of the assembly department where the mechanism is assembled and installed in the case. Notice the light, airy rooms and pleasant working conditions under which all Acme work is done.

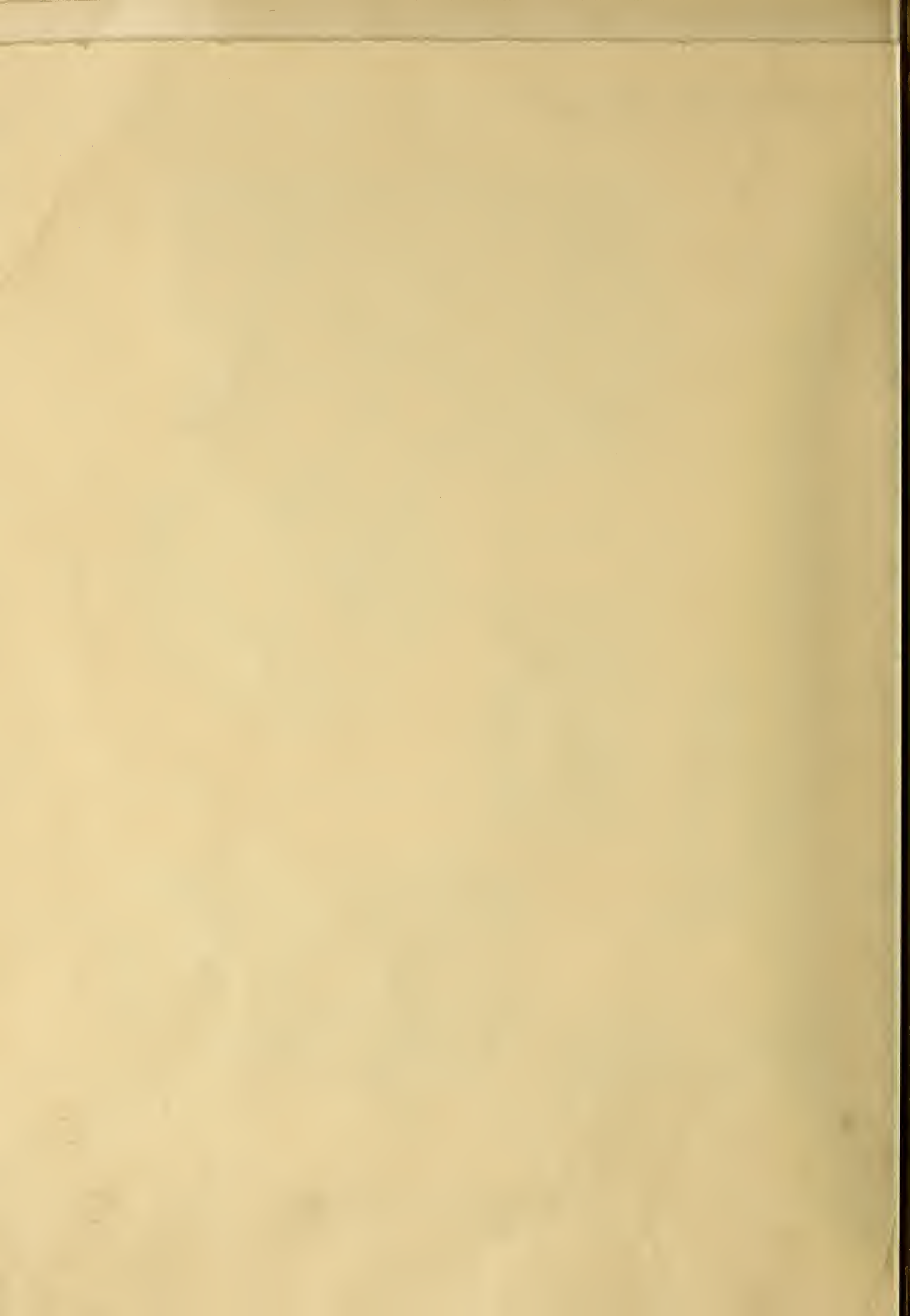


Every projector goes through the eight hour block test. The pictures above and at the left show sections of the benches where the Acme S. V. E. and the model No. 14 are tested.



Part of one of the benches in the assembly department. The mechanism upon which these men are working insures a steady picture on the screen. Great care is taken in this work.

Stand up Under the Hardest Usage



ACME MOTION PICTURE PROJECTORS ARE MADE RIGHT

These pictures show how Acme Projectors are made.

They are built in our own factory where working conditions are ideal. Workmanship is the finest. Materials and parts are subjected to the most severe tests and every projector is thoroughly inspected and tested by a corps of trained inspectors before it leaves the factory.

Our Guarantee

We guarantee every Acme Projector to stand up under the hardest usage. We guarantee brilliant illumination, rock-steady pictures, and the finest definition. We guarantee against faulty workmanship or mechanical imperfections.

ACME MOTION PICTURE PROJECTOR CO.

806 W. Washington Blvd.
Chicago, Ill.



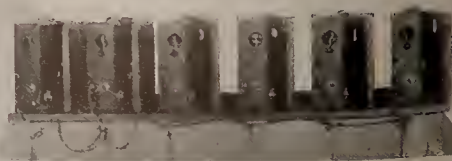
Skilled mechanics make parts for the Acme. Material used by these men has been carefully tested. All parts are again inspected and tested before they are assembled in the projector.



Some of the machinery used in making parts for the mechanism of the Acme. Thousands of dollars have been invested in tools and machinery to insure accuracy in this work. The picture at the right shows the tool department.



Draftsmen are constantly at work on improvements in tools and designs that will keep the Acme in its position as the best portable or semi-portable motion picture projector made.



After the projectors are assembled, they are tested, with both direct and alternating current, for eight hours. This test insures faultless operation of the mechanism.



A view of the assembly department where the mechanism is assembled and installed in the case. Notice the light, airy rooms and pleasant working conditions under which all Acme work is done.



Every projector goes through the eight hour block test. The pictures above and at the left show sections of the benches where the Acme S. V. E. and the model No. 14 are tested.



On the third floor of the factory is a projection room where every Acme is given the final inspection and projection test. No projector is passed in this test unless it projects a rock-steady picture, clearly defined, and with brilliant illumination. The picture at the right shows one of the benches where motors are assembled and tested.



Part of one of the benches in the assembly department. The mechanism upon which these men are working insures a steady picture on the screen. Great care is taken in this work.

Every Acme Projector is Guaranteed to Stand up Under the Hardest Usage

Radio Broadcasting

What Happens at the Station Where Musical Programs Are Sent Over the Ether Waves

WILSON J. WETHERBEE

Westinghouse Electric & Manufacturing Company

A PROMINENT business man whose privilege it was recently to visit one of the largest broadcasting stations in the United States, remarked, "Why, it's the personification of simplicity!"

He had climbed a circular staircase, expecting to be greeted by a baffling maze of wires upon entering the station. Much had been told him of radio and of the complex processes of broadcasting; hence his surprise at the revelation of the ease with which the operations were carried on. Of course, the gentleman left the station still ignorant of the intricacies of the instruments themselves, but he was possessed of information concerning the actual business of broadcasting; and that is all one not versed in matters electrical can hope to understand unless he wishes to devote years of study

to radio—its origins, backgrounds, development.

The apparently herculean feats performed by radio telephony and the romance and mystery which the general public weaves about the idea, are responsible, in a large measure, for a great amount of misinformation. While no one would deny the wonders of a series of scientific operations that enable a resident of a Texas city to sit in his living room and hear market reports, news and music broadcasted from Chicago by merely tuning his radio receiving set to the proper wave length, it should be understood that the processes incident to the transmitting of a story sent over ether waves are not beyond the powers of comprehension of the man on the street.

"When we shoot pictures simultaneously with sound . . ." the

visitor happens to overhear. Today sounds sent over waves of air are a novelty. Tomorrow they will be an old story and we shall be marveling over the newer wonder of still and moving pictures carried to us over waves of light.

A Visit to Station KYW

In order to obtain an accurate picture of a high-powered broadcasting station in operation, let us visit Station KYW of the Westinghouse Electric & Manufacturing Company. This station, located on the roof of the Edison Building at Chicago, has a transmitting radius that ranges between 800 and 1500 miles, and that enables it to serve thousands of owners of radio receiving sets throughout the Middle West. KYW conducts a program that begins at 9:25 a. m. each week-day and continues intermittently until 9:05 in the evening. This service is given on a wave length of 360 meters. In the afternoon an audience of fifty thousand listens in, and in the evening the number swells to a hundred thousand.

A Typical Program

Before proceeding with an account of the manner in which the broadcasting is carried on, let us glance over one of the station's daily and Sunday programs:

DAILY

- 9:25 A. M. Opening Market Quotations, Chicago Board of Trade.
- 10:00 A. M. Market Quotations, Chicago Board of Trade. Quotations every half hour thereafter until 1:00 P. M.
- 1:20 P. M. Closing Market Quotations, Chicago Board of Trade.
- 2:15 P. M. News and Market Reports.
- 3:00 P. M. American and National League baseball team line-ups; progress of games every half hour thereafter until close of all games.
- 4:15 P. M. News, Market and Stock Reports.
- 6:30 P. M. News, Final Market, Financial and Baseball Reports.
- 7:15 P. M. Baseball Report, Children's Bed-time Story.
- 8:00 to 9:00 P. M. Musical Program.
- 9:00 P. M. News and Sports.
- 9:05 P. M. Special Features (as announced by radiophone).

SUNDAY

- 3:30 P. M. Radio Chapel Service. (One hour.)



THE STUDIO AT A RADIO STATION

A performer is singing into the microphone, which is connected directly into the transmitting set by means of a telephone wire. The sounds enter the microphone, travel along the telephone wire into what is known as a line amplifier—housed in the large box-like cabinet on the right—and then into the transmitting set. In passing through these various pieces of amplifying apparatus from the microphone to the aerial, the power of the sound is increased theoretically 1,500,000 times. All types of sounds broadcasted do not, of course, require the same amount of amplification, a drum needing less than a violin. Adjustments to provide the proper amount of amplification must be made by the operator. The photograph shows two members of a theatrical company now playing in Chicago, Elsie Pilcer singing and Ruth Aldrich at the piano, contributing to a special radio program.

How Market News Is Handled

The dissemination of quotations from the Chicago Board of Trade is simplified by the installation of a 'phone line which runs from the wheat pit directly into the transmitting set. At the hours stipulated in the schedule, a trained market announcer whose enunciation is particularly distinct reads the quotations into a regulation ground telephone. His voice is carried over the wire to the station, where, in passing through the set, it is highly amplified before being sent out into the air.

A very tame-looking, businesslike performance, with hardly a suggestion of romance or mystery! Perhaps—yet there is a thrill when we pause to consider the broker in Dallas or Denver who at that very moment sits listening to this financial news "hot off the griddle."

The afternoon service is given in the same way as that of the morning, except that the source of information is no longer one of the world's leading markets but a metropolitan newspaper office from which, by means of a similar telephone connection, news is sent out over the ether routes.

The Business of Transmitting

The operations necessary to the proper transmission of the voices of the announcers who speak from the Board of Trade and the newspaper offices are comparatively simple. A switch control in the station enables the engineer in charge to cut the 'phone either into the transmitting set or through another circuit in which it serves as a communicating line between himself and the announcer. This arrangement makes possible an accurate check at all times between the station and the place where the announcing is being done. When it is time for the station to "go into the air," the announcer signals the operator. They confer briefly concerning the broadcast about to be made.

"Hello! Have I got the set?" queries the announcer. "Give her the gun," will probably be the laconic response from the operator at the station on the roof of the building.



AT THE SENDING STATION

A portion of the station is shown in this picture. The man seated in the chair is communicating with the announcer in the studio, while the other operator has plugged in to the line amplifier to hear what is being broadcast.

The operator in charge must officially sanction the broadcast about to be made, inasmuch as he is in a position to know if other telephony stations are in the air at the same time. When he has signified that all is clear, the 'phone line is cut into the set and the announcer begins in sonorous tones: "This is station KYW—" and then proceeds to read into the microphone the material prepared for dissemination at that time.

In order that the operator may "listen in" on all material sent out by announcers, a receiving set has been installed as part of the station equipment. This receiving apparatus functions entirely without the aid of the customary aerials. It is placed near to the steel frame of

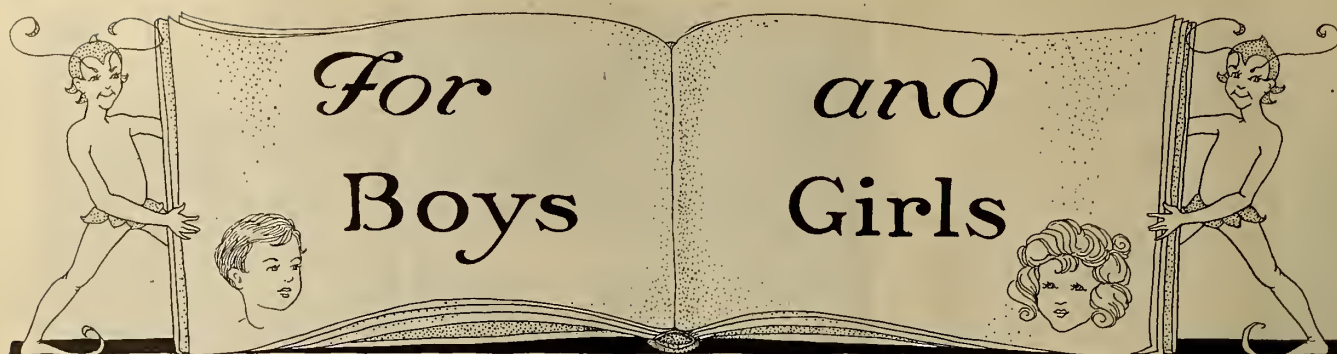
the transmitting set, from which the radiation is sufficiently strong to record the voice on the delicate receiving apparatus.

Broadcasting an Orchestra Selection

With the opening of the evening program at 6:30, the work centers in the studio of KYW, located four floors below the station. It is in the studio that all musical concerts are given for broadcasting.

Let us go through the steps necessary to the somewhat more difficult work of broadcasting selections played by an orchestra. First, it is the duty of a trained musical director to place the various members of the orchestra in their proper positions with relation to the microphone—the very unassuming-looking

(Continued on page 305)



"The Bachelor Daddy"-The Story Retold

How Five Adopted Tots Helped to Give The Happy Ending to His Love Story

THE beautiful princess had sent out the invitations to her wedding and already the presents were beginning to arrive. She wasn't really a princess, but she lived in such a wonderful home and had such lovely things to wear that she might easily have been one. Richard Chester thought himself a very lucky man because he was going to marry such a beautiful lady as Ethel. He hadn't yet discovered that her heart wasn't as lovely as her face.

One day the superintendent of Richard's mine in Mexico wired him to come immediately because outlaws were planning to attack the mine and loot it. This superintendent, Joe Pelton, had always been a close friend of Richard Chester's, and when he called for help Richard could not refuse. Ethel and her mother, however, thought it very selfish of him to leave the city at that time. It was only when Richard made them understand that he would lose a lot of money if he didn't protect his property that they were at all willing.

While they were thinking only of themselves, Sally Lockwood was feeling very badly. Sally was Richard's secretary, and she loved him so dearly that she couldn't bear to see him go into danger. But of course Richard knew nothing about this.

When Richard reached his mine in company with his lawyer, Charles Henley, he found things in a pretty bad way and Joe Pelton very glad

to see him. Now Joe had five motherless little children, the oldest of whom was only nine—and here is where the story really begins.

The morning after Richard's arrival, the band of outlaws crept down the hill and opened fire on the camp. During the fighting Pelton was fatally shot. Poor little lonely children! Now they had no one but Richard, who had promised their father as he lay dying that he would always care for them.

Richard's troubles began when he tried to take the five youngsters back to New York City. He confided to Henley afterward that they nearly wrecked the Transcontinental Limited. You see, they had never been on a train before and they were just bubbling over with the fun of it. All the passengers heaved a deep sigh when they saw the little group pile on, for they suspected that there would be little peace for them from that time on.

While Richard was enjoying a much-needed breathing-spell in the smoking-room and everyone else was in the dining-car, these mischievous children dressed up in the clothes they found in the suitcases lying around on the seats. When the passengers came back from dinner, they certainly had a merry time sorting out their belongings. It was a very uncomfortable situation for poor Richard. He was at his wit's end. He just couldn't keep track of all of the children all of the time; and,

you see, he wasn't really used to children, anyway.

One of the twins tried to shoot a parrot belonging to a fussy old lady. Of course his bow and arrow couldn't really have hurt anything, but the old lady had a terrible fright over her pet and the parrot himself got dreadfully agitated.

The other twin, with his little toy pistol, nearly scared the life out of a lanky man. "How do any parents ever reach the age of forty?" said Richard wearily to himself; yet already he loved each one of them with all of his heart.

It would be impossible to tell you of all their pranks. The kind Sandman finally came to the rescue, but not before the twins had mixed up all the shoes that the passengers had left under their berths for the porter to shine. Richard was so discouraged that he didn't even try to sort them out.

When Richard finally reached New York City, he telephoned to Ethel and invited her and her mother to have dinner with him that evening.

"I have a great surprise for you," he said. And Ethel spent the rest of the day wondering whether the surprise was set in gold or in platinum.

All through the long, dignified dinner, she could scarcely wait to see what he had for her. When the butler ushered in five dimpling children, it was plain to see she wasn't at all pleased.



"There are homes for orphans," she said, disagreeably. But this time Richard would not give her her own way.

"You can at least put them in boarding-school," she sneered; and with that she and her mother flounced out of the room.

Richard was dreadfully disappointed to find her so selfish and it almost broke his heart to part with the children, yet he finally decided to do it. When Sally heard about it, however, she begged to keep the baby boy. "He's so little to send away!" she said, and so Richard let her have the child.

His big house seemed so empty, though, without the patter of children's feet and the laughter of children's voices, that one evening he borrowed the baby from Sally. Richard was altogether too kind, however, and fed the little chap so many sweets that his poor tummy became quite upset and Sally and the doctor and the other children were sent for.

When Richard telephoned Ethel that he couldn't keep his appointment with her because the baby was sick, she was furious and promptly came with her mother to see if Rich-

ard was telling the truth. When they discovered Sally and all the children there, Ethel was so angry that she gave Richard back his ring. Strange to say, Richard wasn't at all sorry, for he was beginning to understand that Sally, the kind, gentle girl who adored children, was really the woman he loved.

And so there was a wedding after all, only-it wasn't the selfish Ethel who was married to Richard. And by and by—would you believe it?—Sally and Richard had dear little twins of their own. And so they all lived happily together ever after.

The Picture Hour

CAN'T you almost hear the roll of the drums and the martial notes of the fife when you look at this picture?

Archibald M. Willard, who painted this famous scene, was a carriage painter in Cleveland, Ohio, in the early seventies. He had never done anything that became very well known until he was asked to paint a Fourth of July picture. The result of his efforts was what you see here. It is a picture which, in spite of certain faults in composition, has made a place for itself in the hearts of the American people.

You all know that the days of '76 were days full of worry and of sadness, for the colonists were revolting against their mother country and no one knew what the future might hold. No matter what the dangers and the trials and the suffering, though, there was a spirit in the people of those days that sent them on to victory.

This vigorous and stirring picture visualizes that spirit for us. Here you see an old man, a youth, and a man of mature years going side by side into battle. The grandfather might well have argued that his great age and white hair entitled him to a safe and comfortable seat by the fireside. When the call came, however, it found him ready, his fine old face glowing with patriotism

(Continued on page 304)



Courtesy of Abbott's Art Gallery, Chicago.

THE SPIRIT OF '76



What to Look for Out-of-Doors This Month



A MONTHLY "USE-YOUR-EYES"
GUIDE EDITED BY LUCILE V. BERG

Blossoms of June

MANY of May's wild flowers are still lingering in early June. Along the cindery embankment of the railroad tracks you will find the second form of the horsetail grass—or horsetail rush, as it is sometimes called—looking like miniature Christmas trees. Note how easily you can pull it apart at the joints. By now the first form, its pale, leafless stalk marked with black bracts at the joints and bearing the cone-like sporehead, has almost disappeared. This is the form pictured in our photograph. These rushes—the scientific name for which is *Equisetum*—are relatives of the ferns and relics of the Coal Age. The horsetail grass of today, although so very much smaller than its prehistoric ancestor, is otherwise unchanged.

Along the roadside and in open lots the great rosettes of the spear-thistles are spreading their leaves to the sunlight—rosettes that will become next year's tall purple thistles. In the less frequented byways, the blossoms of the wild strawberry have dropped most of their petals; as our picture shows, the berries are already ripening. The open fields are carpeted with daisies. In the outer woods are the showy lady's slippers, their white splashed with pink, and in the stillest shadowy depths the Indian pipes lift their pale,

flower-like heads. But everywhere, by the roadside or deep within the woods, in rich soil or poor, the three-leaved poison ivy puts forth its rosy new shoots.

Timely Tree Notes

THE red and silver maples are flinging their winged seeds broadcast, and the tiny balls of the cottonwood will burst as June advances. The air is filled with the fresh sweetness of the catalpa flowers. Pick a bud, press it gently between your fingers, and watch it open. This month the delicate white-flowered racemes of the wild black cherry stand upright; later, in July, they will hang heavy with rich black fruit. The basswood opens its fragrant, creamy blossoms to the honeybee. The petals have dropped from the flowers of the horse-chestnut,



EQUISETUM—FIRST FORM

In the beginning of the world's history these jointed grasses grew to immense trees, forming the great forests that made our coal deposits of today. This is the fruit-bearing form. Where the dark bracts clasp the joints of the stems in this first form, the second—the sterile or food-gathering plant—will have whorls of green leaves looking like jointed pine needles. Watch for it.

for the great droning bumblebee has performed his mission and the flower no longer needs the showy parts that attract insect visitors. At the tips of the dark branches of the evergreens you will note a new pale-green growth, in whose cup of needles are hidden next year's cones.

In the Insect World

THE white cabbage butterfly has already started on her tour of devastation, and the Monarch has traveled north with the growth of the milk-weed. Above our ponds and streams, the swift-winged dragon-flies are relentlessly pursuing midge and mosquito—eating, mating, and depositing their eggs while on the wing. The spider's snares are hung with dew-drops. Follow the bumblebee to its nest, if you will, and watch the work at the entrance, but do not destroy the nest. Remember that without the bumblebee's help the wild pink lady's slipper would cease to light up the dim woods.

The flesh-flies are fast clearing away the pitiful little corpses that man and winter have strewn over meadow and woodland. Among these sanitary officers of Mother Nature are the blue and greenbottle flies, which lay their delicate eggs on the under-surfaces of dead animals or in mouth, eye or nose cavities, where the tender germs will be protected from the pelting rain and the fierce heat of the sun. In the picture the open mouth of a dead snake has supplied a nursery. In twenty-four hours the eggs hatch. The gray flesh-fly, on the other hand, does not deposit eggs; she dips down and drops her ten or twelve tiny, wriggling maggots wherever she happens to touch the dead body. In the great scheme of things, it is the maggot that is charged with the disappearance of corpses. When its growth is complete, the maggot burrows into the ground to pupate, emerging two weeks later as a full-grown fly.



ONE OF NATURE'S SCAVENGERS

A closeup showing the eggs of the greenbottle fly laid in the mouth of a dead garter snake. The eggs hatch into tiny pearly-white maggots which feast upon the inner tissues of their host. When full-grown (about half an inch long) the maggots burrow into the ground just beneath the snake to pupate, emerging after two weeks as mature flesh-flies which proceed to repeat the cycle.



THE WILD STRAWBERRY

"Doubtless God could have made a better berry, but doubtless God never did." Thus wrote Izaak Walton. This particular patch was photographed near Chicago the last week in May; its berries will be ripe by the end of June. Very closely must you look to spy this berry, for the leaves of the strawberry plant always overhang blossoms and fruit as if in jealous, loving protection.

Some Pond-Dwellers

DOWN in the ponds the snail has laid its masses of gelatin-covered eggs. With the aid of a small microscope you can watch the cells grow and divide, and be rewarded for your patience when the nascent creatures begin to turn round and round. At last you will see the perfect miniature snails crawling continually round and round within the egg, waiting for the time to come when they can leave its narrow confines to live in the weed-choked pond.

During June the toad's velvety tadpoles begin to grow legs. Notice the order in which hind and front legs make their appearance. Catch the painted terrapin and find out how old he is by counting the rings of growth of one big scale on his back, just as you would count the rings of growth on a tree.

Two Little Animal Friends

MOLLY COTTON TAIL has her babies safely hidden in an abandoned woodchuck burrow or in a rounded hollow under tangled grasses or briars. And if you have the habit of peeping into hollow trees, perhaps you may catch a glimpse of the cunning family of the bushy-tailed gray squirrel. This frolicsome, friendly little creature has learned to trust boys and girls, who have all been taught not to molest him. A little love offering of nuts or other food will

round out your June afternoon with the real fun of watching his graceful movements as he scampers about, and of seeing the skillful, businesslike way in which he handles the job of getting at the kernel.

Cradle Time in Bird-Land

JUNE is the month of nestlings and the songs of many of the birds, particularly in the early morning, seem to take on a quality that is more vivid and colorful than at any other time of the year. It seems almost that their joy in the coming of the little baby birds must express itself in a song that belongs especially to this season.

Now the kinglet's ruby crown, that ordinarily lies smooth and flat, is swollen and stands erect. The male scarlet tanager wears a black crescent under his throat, that a little later will disappear in the molting. High among the reeds, where you catch an occasional glimpse of their red shoulder caps, the red-winged blackbirds are building their dainty cup-shaped nests. Stand beneath the oriole's aerial cradle some still June day and listen for the shrill, insistent calls of the hungry baby-birds. Watch the robber bluejays and little red squirrels in their wordy battles for the possession of the eggs or the tiny nestlings in some song-bird's home. Watch—and give a thought to that never-ending fight for existence which is being waged all around us in the great out-of-doors.

THE PICTURE HOUR

(Continued from page 302)

and determination. The father, too, might have thought that it was right for him to remain at home and care for his family. Even the boy was not too delicate nor too young to be afraid of the sights and sounds of the battlefield. There was no one in all the colonies too old nor too young to serve his country when it needed him.

And the women who stayed at home were just as brave as the men who marched away into danger. In a way, theirs was the finest form of bravery, for theirs was the courage that enables you to wait without news and go without seeing people you love, and to do it all with a smile. It is much harder to be brave all by yourself than it is to be brave when everyone is watching you.

This spirit of '76—the spirit that swung the colonists on to victory through the greatest suffering and hardships—is the spirit that all good Americans should have today. There are many forms of love that are noble and fine, such as the love of a mother for her child or of a brother for his sister; but that love for one's country which will lead a man to give up everything, even his life, is counted the very highest type of love, for it has in it complete self-sacrifice.

This Fourth of July, when you see the flag swing down the street, remember the brave men in the days of the Revolution whose devotion made it possible for the Stars and Stripes to wave over a free country.

A "Page" Story

Mark Twain was in the habit of having his tonsorial requirements attended to by a certain hotel barber. On one occasion, while peacefully having his thick white hair trimmed, his attention was arrested by a very diminutive boy in buttons, who was standing in front of him trying to attract his attention. With a twinkle in his eye, but looking profoundly solemn, Mark inquired—

"Who are you?"

"A page, sir," the boy replied.

"A page," exclaimed Mark, with pretended scorn—"a page! Why, you are hardly big enough for a paragraph!"

A Visual Demonstration That Saved Lives

THINGS seen are indeed mightier than things heard. Witness this incident of how a cedar waxwing's wonderful beauty once saved the lives of hundreds of its mates.

Vermont fruit-growers had introduced into the state assembly a bill which would legalize the shooting of cedar waxwings. Bird-lovers rallied to fight the bill, but in spite of their arguments it passed the house. When it came to the senate, however, the opposers no longer argued—they merely brought into the chamber a mounted specimen of the bird and let it plead its own cause. The bill was defeated.

Another waxwing feeding her hungry birdlings is pictured on this month's cover. The drawing has been given poster treatment, however, and does not reproduce the bird's true colors. The PICTURED ENCYCLOPEDIA describes the waxwing's plumage as "a perfect blending of gray tones, with the fore parts flushed with pink. His high pointed crest rises from a setting of velvety black feathers. His tail is beautifully tipped with yellow, and the wings, which show white and yellow, have the secondary feathers ornamented with red sealing-wax-like tips, from which comes the name."

Visual Education on Wheels

(Continued from page 287)

the collection before the exhibit is sent to the storage shelves."

"There is nothing in the traveling museum which cannot be used in direct connection with the work of the schools," writes Mr. Rathmann, in a bulletin prepared for the U. S. Bureau of Education. "It contains no curiosities, no abnormalities, no freaks of nature. It is not a 'cemetery of bric-a-brac,' but a nursery of living thought. The specimens of mammals, birds and insects, the minerals, the natural and manufactured products of a country, are placed before the children to vivify what they themselves have discovered through their own observation and reasoning as to the animal and vegetable life, the soil products, and the occupations of the people."

From the Flax Collection

Should the subject of the week be flax, the teacher may requisition even an old-fashioned spinning wheel in order to give her pupils a first-hand conception of the primitive, toilsome methods of spinning in use before the days of our modern labor-saving machinery. The spinning wheel will be reinforced by numerous photographs and slides illustrating the flax-growing regions of the world, supplemented by copies of a stereograph picturing a scene in Belgium where flax is being taken from the stalks to soak in the river. With these go specimens of flower, fiber and seed, pieces of fabric woven from flax fiber, and samples of linseed oil and linseed oil cake made from the seed.

Bird Exhibits and Records

When the topic to be visualized is that of a certain bird family, the motor truck brings mounted specimens of its various members. The museum does not hesitate before the problem of size; it is as ready to send an American eagle, in a case measuring 32x14x25 inches, as a dainty, iridescent humming-bird, accommodated by a box measuring only 4½x5½x3¾ inches. The packing of these easily injured exhibits is admirably handled. The

bird on its stand slides into a retaining wall and is firmly held in place within the wooden containing case by a band which fastens with a snap, preventing movement during transportation and making it immaterial whether the case is put into the truck right side up or upside down.

These bird exhibits are not, of course, elaborate habitat groups such as our great museums of natural history are developing. They are simply "stuffed birds on a stick," not too fine to be passed from pupil to pupil for that close study of every detail of plumage, wing structure, coloration, claws and other characteristics which will furnish the key to its identification when the children meet the living bird on their lawns or in parks, woods and fields.

Phonographic records of bird calls and songs are likewise available for class study. Hundreds of other records figure in this collection—records vocal, instrumental and literary—ranging from Mother Goose rhymes, animal stories and folk songs to the great classics of operatic and orchestral literature with which every well-educated person should be familiar. The music department and the physical culture department make free use of this record service to develop musical appreciation and rhythmic understanding.

(To be continued)

Radio Broadcasting

(Continued from page 299)

instrument shown suspended in the air in the accompanying photograph of the radio studio. The delicately-toned violin, for example, will be placed about two and a half feet from the machine, the piano a little farther away, and the heavy drums far in the background. The announcer then gives the name of the selection to be played and, having communicated by means of a special private line with the operator in charge of the sending station on the roof, signals the orchestra leader to start, at the same time cutting in the

microphone.

As the orchestra plays the announcer keeps in constant communication with the sending station in order to know what results are being obtained. The musicians may be either too close to or too far removed from the microphone to get the proper results. In that event they are directed in low tones either to step closer or farther away. The work of those in charge of the studio must be done quickly and quietly; no sounds extraneous to those which are being broadcasted must be made.

What Constitutes a Good "Radio Voice"

Everything broadcasted presents a new problem to the operator in charge. One speaker may possess an exceptionally resonant voice, while that of the next performer may need to be highly amplified in order to be heard.

In this connection it is interesting to note that highly cultivated voices are not the most desirable for successful wireless transmission. There are too many inflections, too much color, for radio purposes. In the radio studio such a voice is described as "overtrained." As the operator expresses it, "It blasts."

Close Co-operation Necessary

In broadcasting a program, it is essential for good results that all concerned in the operations co-operate very closely, and this necessitates a considerable amount of telephoning among the various departments of studio and sending station. In short, a broadcasting station in full operation is not unlike an army in the field—each part must know what the others are doing.

As has been shown, a radio station like KYW in Chicago operates intermittently over a period of time representing almost twelve hours. This development has come about only within the last two years. So tremendous is the popular interest in radio today, so rapid the growth and improvement of apparatus for radio telephony, that it is impossible to predict exactly what the future may hold for this latest contribution of science to humanity.



The Films in Review

By M. M. F.

SILAS MARNER

OCCASIONALLY, out of the reek and the welter of melodrama and modern sex hysteria, comes a photo-drama of the type of *SILAS MARNER*. One is prepared to meet such a picture with more enthusiasm, perhaps, than its quality may deserve simply because it is a wholesome and refreshing change.

"Silas Marner" is a difficult novel to reproduce upon the screen, for George Eliot painted character evolution rather than events and her long psychological analyses are not pictorial. The plot, however, has provided sufficient action to fill seven reels.

The story of the miser of Raveloe whose life was embittered by his church's narrow understanding of divine justice, and whose bitterness was finally dissipated by the influence of a little child, is told clearly and with marked fidelity to the original content. It might have been better to have laid more stress upon important situations even at the expense of relatively inconsequential details, for the film lacks those dramatic high-lights and shadows which emphasis produces.

The clear distinction which Eliot draws between the Silas Marner theme and that of Godfrey Cass is not brought out, nor is the climax which early unites both plots, with the discovery of Godfrey's cast-off wife, made impressive. This climax, however, while spectacular enough to lend itself readily to filming, was really a spiritual readjustment for all involved, so that the director is not to be censured if he has failed to give it the punch that one has grown to expect in the film of today. There are a number of situations which are treated in a rather theatrical and unconvincing manner; as, for example, the instance where the villagers of Raveloe learn that Silas has knowledge of medicinal herbs. The lame and the halt gather

themselves together and assail Marner *en masse*, somewhat too much after the manner of "The Miracle Man."

When all is said, however, the fact remains that the director has translated to the screen an appealing classic and, without flourishes and grandstand plays, has told his story logically and effectively.

Crauford Kent interprets the exacting rôle of the erstwhile misanthrope with sympathy and sincerity, if not with unusual skill and understanding. And in the cast is to be found George Fawcett, an actor whose presence would be a delight in any production.

This film dramatization of "Silas Marner" cannot be ranked as a great screen play, for it lacks a certain finesse and subtlety of treatment and its simplicity has not an epic quality. It is, however, genuine and satisfying and if its subject matter does not fit it pre-eminently for the commercial trade, it is all the more suitable for the schoolroom and for programs of a family type.

Released by Pathe.



SILAS MARNER

Adorable, mischievous little Eppie makes it impossible for the loom to absorb all of Marner's time and energy, as in former days.

JUNGLE ADVENTURES

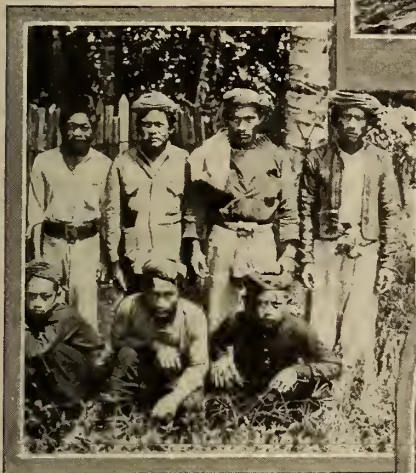
MARTIN JOHNSON, an adventurer and explorer who once sailed with Jack London on the voyage of the Snark, has been very successful in bringing his recent exploits before the public through the obliging medium of the motion picture. And the world is ever willing to listen to the tales of those who have traveled in strange lands. It is the eternal lure of the unknown.

The last trip which has been recorded upon celluloid and presented to the public is one taken by Johnson and his entourage up the Kinibatangan River into the heart of Borneo. This tropical river winds blackly through lush vegetation; in its mysterious depths lurk alligators which devour human flesh with great gusto; on its calm waters, the infrequent "gobong" of the native glides with uncanny swiftness; and on its shores may be found all the strange, wild beasts of a strange, unfamiliar country. Against this picturesque and beautifully photographed background the action is laid. And while the picture is not sensational, as was "Shipwrecked Among Cannibals," it is fully as interesting.

The views of animal life are astonishing in their nearness and intimacy. One finds it difficult to understand how they could ever have been secured. Monkeys, orang-outangs, elephants, buffaloes, deer, bears and extraordinary birds all come within the range of Johnson's camera without the least apparent consciousness of his proximity. These pictures taken in the heart of the jungle are informational in the highest degree, and constitute a remarkable pictorial study of the fauna of this unexplored land.

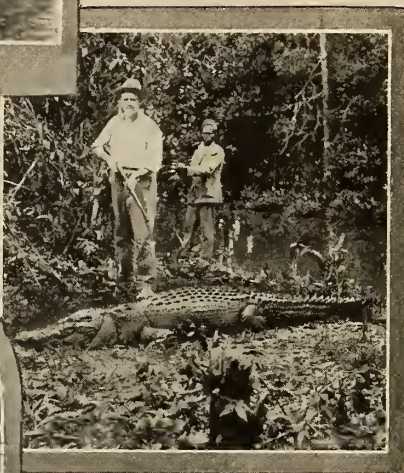
Mr. Johnson has been fortunate in obtaining views of tribes whose features have not as yet been immortalized by any camera—tribes distinguished by the use of the poisonous blow gun. He has also caught a band of Malayan pirates, but these individuals, while most evidently lacking in those qualities that make for culture and refinement, do not appear so villainous as one would expect from their description in the subtitles.

The scenes in Sandakan, with its coconut palms, its buffalo carts and its oriental atmosphere, are distinctive. Sandakan is the capital of British North Borneo, where the expedition began. Mr. Johnson has the gift of selecting subject matter replete with human interest as well as with novelty and charm. The picture is consequently not the stereotyped travelogue, and this refreshing difference is accen-



Rolling five hundred miles down the Kimibatangan River in a house-boat of native construction. In the murky recesses of this tropical river are the headquarters of the Malay pirates, the modern buccaneers of the South Seas. Consequently, danger lurked round every dusky curve.

Here are typical representatives of the Malay pirates who infest the lonely South Pacific. Our voyageurs encountered them without harm, although, according to the subtitles, they took their lives in their hands in the attempt to secure photographs.



To obtain this view Johnson employed a telescopic lens of unusual power. Later these elephants charged the camera and stampeded the entire outfit into the sheltering branches of a kindly tree. There was one casualty—for the elephants.



Wizened like an old man, and utterly unconscious of the camera, was this little monkey who graciously posed and performed in a personally directed skit.

In one day the Johnsons bagged ninety of the crocodiles which swarm in the Kimibatangan River. The defunct animal here pictured is supposed to be the very one that indulged in a too-pretentious dinner consisting of the native cabin-boy. This exhibition of gormandism cost him and his brethren their lives.

tuated by the sophisticated humor of the breezy title-writer.

Released by Exceptional Pictures. Distributed in Chicago by American Releasing Corporation.

THE GRAY DAWN

STEWART EDWARD WHITE is a strong, virile writer and it is therefore entirely logical to expect that the film adaptation of such a forceful novel as "The Gray Dawn" should prove dramatic and effective. It is a pleasure to find that one's expectations are not disappointed, for the film is vivid and picturesque, following the original plot with only slight alterations.

The material of the novel yields itself gracefully to the screen. Its action is swift and melodramatic, with a climax unusually tense and spectacular. The story deals with the colorful days of 1852 in San Francisco, when the turbulent elements, the back-wash of the gold rush, dominated the city government. How the outraged, law-abiding citizens finally organized themselves into the Vigilantes and dealt out summary justice is a matter of history. And it is this historical background which gives sincerity and realism to events whose grimness might otherwise be considered exaggerated.

The director has not attempted any detailed character analysis, which is an instance of sound dramatic judgment, for the drama is not concerned with the psychology of the situation but with the situation itself. Neither has he attempted to bring out the un-

derlying significance of the story. The application is left for the optience to make, and it is an easy one to make in these days of crime and violence.

A cheap attempt at humor is found in the introduction of a monkey whose antics are supposed to serve as comic relief, but these scenes are fortunately brief. At the beginning there is perhaps insufficient explanation of the characters and their several positions to make the preliminary situation clear for one who has never read the book; this is a matter which the unreeling of the film remedies.

The cast contains a number of well-known names, such as Robert McKim, George Hackathorne and Claire Adams. While the work of the actors is capable, the emphasis is at all times upon the story.

THE GRAY DAWN is a fine example of what can be done in handling melodrama and keeping it from becoming something entirely lurid and sensational. The director has shown a fine restraint in many instances where he could have run amuck, in the approved style of serials.

Released by Hodkinson.

POND AND STREAM LIFE

WITH the glad spring days are born innumerable little creatures of whose existence most of us are ignorant. Every creek and brook, every small body of standing water, has its own population, as busy and as vivid in its way as is that which throngs our restless city streets.

POND AND STREAM LIFE presents

some of the leading citizens of such communities in a manner entirely pleasant and informal.

The dragon-fly nymph, or larva, is the first star to put in an appearance but, apparently overwhelmed by this unexpected publicity, he immediately elbows himself down into the mud and out of sight. There may be seen, however, the husk from which he recently emerged—a ghastly and mournful spectacle. We should be thankful that we were created of goodly size, for a dragon-fly as seen with the optics of a fly, for example, is a veritable ogre with a fearful mouth and hideous, staring eyes.

The damsel-fly nymph and the damsel-fly of brilliant hue are the next performers on the aquatic program, and they and a number of their close relatives disport themselves upon the screen in sprightly and dramatic manner. Following them come a water-beetle baby and a very athletic, if inconsiderable, horse-hair snake.

The performers in this unique film are many and varied. The snail, for instance, stages the "thriller" of the performance by crawling insouciantly along the edge of a razor without injury. The mud-turtle and the leopard frog both give an edifying exhibition of fancy eating—edifying, that is, for everyone save the agitated meal itself.

The clumsy but spirited crawfish is the headliner for the second reel and obligingly discloses a number of sensational family secrets in regard to its nursery arrangements. The portable home of the caddis-fly larva—that strange and retiring citizen of these miniature deeps—is pictured, with its occupant registering very great embarrassment. At this point the horse-hair snake reappears to stage a spectacular knot-tying stunt, but he finally makes place for a troupe of back-swimmers and for the fat lady of the performance, a huge old leech. The *pièce de résistance* is a drama with a tragic ending in which a villainous water-tiger stalks an unsuspecting tadpole, with dire results for the latter. In happy conclusion comes a cubist dance by the Branchippi, the water-fairies of the stream.

Such a recital must make obvious the fact that, while this film is not treated in a highly scientific manner, it is, nevertheless, a highly informational picture. So great, in fact, is its appeal and so varied and interesting are its contents, that the educative process it entails is an almost unconscious one.

Produced by the Society for Visual Education, Inc.



THE GRAY DAWN

Murderers who flourished like the green-bay tree under the régime of corruption, suddenly wilted when brought before the stern tribunal of the Vigilantes.



Keeping Abreast of the Screen

*Brief Comments on Current Films for the
Special Information of Parents and Teachers*

Bought and Paid For

For a while it seemed as though Jack Holt had made a sad bargain when he purchased the saccharine Agnes Ayres to preside over his ornate hearth. In the end, however, all's well even if friend wife does insist upon his patriotic observance of the Volstead Act. There is one objectionable scene which makes it undesirable for those of tender years to see this picture. (*Famous Players-Lasky.*)

Beyond the Rocks

The prestige of the names of Elinor Glyn, Rodolph Valentino and Gloria Swanson will make this picture a box-office winner, regardless of its merits. And if it is a popular success, what need to hunt for its merits? In considering this play for family consumption, it should be recalled that Elinor Glyn wrote "Three Weeks" and that Gloria Swanson wears her gowns decidedly low. (*Famous Players-Lasky.*)

Cardigan

A charming and very worth-while presentation of the early days of the Revolutionary War. Based upon Robert W. Chambers' novel of the same name, it is a picture which can offend none and which will please all. (*American Releasing Corporation.*)

The Conquering Power

What Balzac's "Eugenie Grandet" is labeled on the screen. With questionable judgment, Rex Ingram has so twisted the somber conclusion of the novel as to provide the bromidic happy ending for the film. Otherwise the picture is a beautifully artistic production working up to a very tense though somewhat gruesome climax in the death of the old miser. Any child, however, who can thrill over "Treasure Island" can watch this picture without injury to his nerves. (*Metro.*)

The Doll's House

The temperamental Nazimova proving that she really is temperamental.

A film dramatization of Ibsen's play which would be excellent if Nazimova were not in it. (*United Artists.*)

Head Over Heels

The kind of picture that makes you return to your belief in the flabbiness of the cinematic art. A picture that is an incongruous burlesque, with Mabel Normand in an impossible rôle. The essential vulgarity of the humor is not redeemed even by failure. (*Goldwyn.*)

The Leather Pushers

A "rattling good" comedy series based on Witwer's stories about a prepossessing young aspirant for championship honors in the prize ring. A welcome relief from slapstick and custard-pie comedies. In the two installments viewed the fighting was handled in such a clean, humorous fashion that few mothers could have any serious objection to their children's watching these snappy fistic contests. There might, however, be some objection on the score that the hero and his craft are made altogether too prepossessing, inspiring in the boyish mind a desire to adopt similar means of livelihood. (*Universal.*)

The Man Who Married His Own Wife

An extraordinary thing to do! And an extraordinary false nose plastered upon the classic features of Frank Mayo! And an extraordinary storm which lashes the waters of the deep but does not rock the ship which sails the lashed deep! And those are all the extraordinary things about a very ordinary film. (*Universal.*)

Reckless Youth

A case of reckless youth becoming appreciative youth! The girl who just has to sow her wild oats is indeed fortunate to have a tender husband with welcoming arms awaiting her at home. Elaine Hammerstein is the mild

sower and she doesn't harvest all that she has planted. (*Selznick.*)

The Seventh Day

A pictorial contrast between the morals of the city and those of the country. Nice Richard Barthelmess serves as the upright country boy who proves that all that glitters is not gold. It is very interesting for us city folks to see ourselves on the screen! (*First National.*)

The Silent Call

Here is a photo-drama for the entire family. The chief actor is that wonderful dog, Strongheart, and to watch him on the screen is more refreshing than reading one of Ernest Thompson Seton's stories. The whole picture breathes of the out-of-doors. (*First National.*)

Smilin' Through

An idyl of the screen whose delicacy and refinement of treatment set a high standard for coming productions. (*First National.*)

The Vermillion Pencil

One of the tales of Scheherezade in a modern Chinese setting. That fine actor, Sessue Hayakawa, essays two rôles, neither of which gives full scope to his really remarkable powers. In places the play is gruesome and spectacular, and one of the props, a volcano, shows much dramatic temperament. (*Robertson-Cole.*)

The Wall Flower

A wholly improbable film story of the ugly duckling type. Its stereotyped comedy has the conventional ending. (*Goldwyn.*)

Why Announce Your Marriage?

There is really no need—if the bride and groom are in love. Under such circumstances marriage, like murder, will out. There isn't much to the story, but what there is gets across effectively in the hands of Elaine Hammerstein and Niles Welsh. From the censor's viewpoint the situations approach thin ice at times, but by skillful handling mirth triumphs without suggestiveness. (*Selznick.*)

Woman, Wake Up

The charming Florence Vidor in a little drama designed to show that what is sauce for the goose is also sauce for the gander. A picture that promises much and delivers but little, and whose domesticity smacks of the sophisticated. (*Associated Exhibitors.*)



The Film Field

In offering these selections, VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from data given out by the producing companies. In general, films should be viewed by qualified judges before being shown to school children.

NATURE STUDY AND OTHER SCIENCES

EXPERIMENTS WITH SULPHUR—Various scientific theories concerning the chemical possibilities of this substance, pictorially demonstrated. (*p*, Chas. Urban; *d*, Kineto Co. of Amer.)

ANNE'S AIGRETTE—There is just enough story here to carry the lesson of the inhumanity of the traffic in the plumage of the American egrets for the purpose of personal adornment. When Anne learns how these birds have been almost exterminated through the heartless work of plume hunters, she decides that she does not want to wear her new hat. The picture contains interesting scenes in the Federal bird refuge and the cypress swamps of Arkansas, where the egrets should be safe in their native haunts. (*p* and *d*, U. S. Dept. of Agric.)

FOR THE GEOGRAPHY CLASS

MY COUNTRY—Robert Bruce has made many beautiful scenics, but probably never a more inspiring one than this reel made in the Pacific Northwest, a reel which presents many of majestic scenes of rugged splendor that make this region famed throughout the country. (*p*, Bruce; *d*, Educ. Films Corp.)

HIGH WATER—Not the surging tide, but beautiful Crater Lake, serene in its resting place near the clouds, is pictured in this scenic. The cartoon at the end of the reel should be cut. (*p* and *d*, Goldwyn.)

BRIDGES OF NEW YORK—The bridges of New York City have ever held fascination not only for those to whom the city is still a novel thing, but also for those whose feet daily cross them.

This picture is a very clear, effective presentation of the different types of bridges that lead into Manhattan. (*p*, Chas. Urban; *d*, Kineto Co. of Amer.)

FOR THE HISTORY CLASS

MAKING A NEW WORLD—Beginning with intimate pictures of all the leading statesmen at the Disarmament Conference at Washington, the film shows why they were there and the part which each plays in this great undertaking. A great deal of vivid statistical information is given on the issues involved, clarified by pictures of battleships of the various nations. Bombing operations, target practice and airplanes are shown in juxtaposition to the heavy costs of these instruments of war. This two-reel film constitutes a historic document of permanent value as well as of present interest. (*d*, Henry Bollman.)

A VANISHING RACE, KINETO REVIEW—An instructive review of the life of the American Indian. It begins with scenes of the country of which the Indian was once master. His life in the open is illustrated by hunting and fishing scenes. The squaws erect the council tent for the meeting of the clans. Their dances, family life and handicrafts are shown as they used to be. (*d*, Kineto Co. of Amer.)

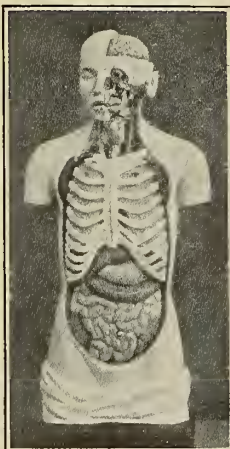
WHILE CANNONS CRASHED: A STORY WITHOUT WORDS—No titles are needed in this picture of one of the last battles of the Great War. The contents are divided as follows: 1. Big guns firing and shell bursting; 2. Artillery advancing under shell fire; 3. Mounted machine-gun motorcycle corps responding to the call; 4. Stretcher-bearers in search of wounded; 5. Bringing in wounded; 6. Infantry rushing through shell fire; 7. More prisoners and Hun wounded; 8. Bandaging wounds; Field aid station. (*p* and *d*, Pathe.)

FOR THE CURRENT EVENTS CLASS

FOX NEWS 58—Glimpses of the coast guard steamer Tampa warning steamers off against icebergs; New York City fire chief rushing to a fire; steamer Majestic sailing from Southampton, England; novel automobile in Los Angeles, Calif.; modern methods of travel in Japan. (*p* and *d*, Fox.)

FOR THE LITERATURE CLASS

HOMER'S ODYSSEY, OR THE ADVENTURES OF ULYSSES—A pictorial account of the classic roving of this ancient Greek warrior. In the fourth and fifth reels are incorporated views of Sicily, ancient Syracuse and other places supposed to have been visited by the heroic rover. The National Motion Picture League advises cutting of the scene in the first reel showing a man's eyes being put out with a burning brand, and in the third reel the views



Anatomical Models

The use of models for teaching Physiology and Hygiene is no longer a luxury. It has become a necessity.

Pupils develop an inspiring interest when structures are presented in their natural size, color and relationship and when functions and detail are pointed out.

The accompanying cut represents our model K-14, one of a line of over 200. We carry the largest stock of anatomical models and charts in America.

Write for special circulars and catalog.

Denoyer-Geppert Company

5235-5257 Ravenswood Avenue, Chicago

Please send me a catalog and further particulars regarding your models and charts.

Name

Institution

Address V.E.-22

showing Ulysses shooting men with bow and arrow. (*d*, Natl. Non-Theat. Motion pictures.)

IN CONNECTION WITH THE SERMON

THE POWER WITHIN—It is reported that this four-months-old film in five acts is in high favor with churches and clubs and is already receiving "repeat dates." In the guise of a gripping drama of the fires of faith and the power of love, a sermon is preached which is entirely suitable for churches. It is a story of modern times, drawn along lines of thought exactly parallel to the Bible story of Job. In fact, several scenes from the story of Job are flashed on the screen for the sake of forceful comparison. (*p* and *d*, Pathé.)

AFTER SIX DAYS — An ambitious visualization of parts of the Old Testament which is said to exceed in scope and impressiveness anything that has been attempted in Biblical subjects thus far. This multi-reel production is non-sectarian in its appeal. (*p* and *d*, Artclass Pictures Corp.)

MISCELLANEOUS SUBJECTS

OFFICIAL URBAN MOVIE CHAT No. 1 — A reel that presents American arts, science, travel and industry, stimulating wholesome thought and better citizenship. The industrial section opens with a view of Gutenberg, the inventor of movable type, and follows it up with shots of the modern linotype machine as operated in a large newspaper plant. In the science section the growth of electric crystals is beautifully photographed. Long lumber flumes traveling over mountainous scenery breathe of the great American outdoors, while the sport section shows fishermen attempting to land a big salmon, bringing a laugh when a bulldog dives into the stream and lands the fighting fish. (*p*, Kineto; *d*, Hodkinson.)

PATHE REVIEW 151—Among the subjects included in this review are several notable skyline subjects; "When the Salmon Come Home," with some very fine views of salmon climbing over and through steep rapids to the headwaters, the big fish plainly discernible as they leap above the flood; and "The Bonehead," a close-up of a prehistoric monster, the Triceratops. One view gives a good idea of how it looked when it was found, an ancient fossil in the deep rock strata, and how the entire skeleton was assembled and photographed. (*p* and *d*, Pathé.)

RECREATIONAL PROGRAMS

THE GREATEST THING IN LIFE—The story of a wealthy young snob who found out what is worth while and acquired manliness in the trenches. 6 reels. (*p* and *d*, Famous Players-Lasky.)

THE FOOLISH AGE—A young girl starts out on a "Crusade of Cheer" which is entirely in keeping with a sermon delivered on her graduation day. She refuses to marry her fiancé because he is not poor and down-trodden and does not "need" her. In her desire to do good in the world she reforms some desperate characters, but finally decides that she cannot live without the man she loves. This five-reel comedy features Doris May. (*p* and *d*, Robertson-Cole.)

THE MOTION PICTURE—YESTERDAY AND TODAY

(Continued from page 292)

various types of settings and thus avoid unnecessary construction. In one studio may be found colonial, Italian, English and Japanese gardens.

Many large companies own hundreds of acres surrounding their studios, so that it is seldom necessary to leave the grounds for out-of-door scenes. When, however, the director desires an unusual location, he merely has to refer to a file in the office in which various scenes in the region round about are classified according to type. If he wants a New England lane, a sandy desert,

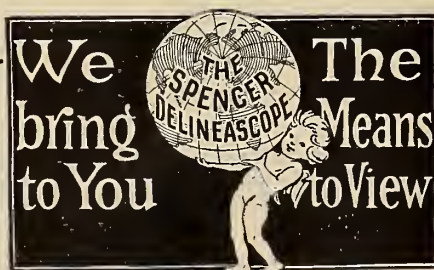
a mountain, a comfortable farmyard, a dismal swamp, all that he has to do is to look through a card index whose information has been carefully compiled for just such emergencies.

Heading West

Unlike the early days of production, when actors had almost to be dragged in by the hair of their heads, there are now more applicants than can be used. Although the larger concerns work with as many as thirty stock companies and daily use hundreds of extras, there are thousands of disappointed ones in this modern California gold rush. Like the out-of-door scenes, these extras are all indexed, with a descriptive account of their ability and their appearance. The director in need of some special type can run through this index and discover the particular person who will best meet his demand.

In addition to all these departments are lunchrooms, dressing rooms, negative rooms, developing rooms, projection rooms and offices, each one as interesting in its way as those already described. Certainly the motion-picture industry must be respected as a business even if it may be open to criticism as an art.

(To be continued)



For projection of lantern slides in the school, lodge, church, family circle; no place too small or too large for the

SPENCER DELINEASCOPE

It's as far ahead of the old Stereopticon as the Automobile is of the wheelbarrow. Five models. Prices from \$25.00 to \$185.00

Send for illustrated folder

SPENCER LENS COMPANY - Buffalo, N. Y.



SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics and Health and Sanitation are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

*Each title is a single reel unless otherwise indicated.
All films are printed on non-inflammable stock, standard width.*

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands

Nature Study

Where Plants Live
The Monarch Butterfly
SamiaCecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

*For prices and other details regarding SCHOOLFILMS
write direct to headquarters*

The Society for Visual Education, Inc.

806 Washington Blvd., Chicago

220 W. 42nd St., New York

*Printing
and
Advertising
Advisers*



*One of the Largest and Most Completely Equipped
Printing Plants in the United States*

*Day & Night
Service
All the Year
Around*

School Printing

Whether you have a large or small Catalogue, Bulletin, Pamphlet, Magazine or Publication to be printed, it is our opinion you have not done your duty by your institution or yourself until you have secured prices and learned about the service given by Printing Products Corporation.

We ship or express to any point or
mail direct from Chicago

**Make a Printing Connection with a Specialist
and a Large and Reliable Printing House**

YOU SECURE FROM US

Proper Quality—Quick Delivery—Right Price

Business Methods and Financial Standing the Highest

*Ask the Publishers of
"Visual Education" what they think of our service and prices.*

Printing Products Corporation

Formerly ROGERS & HALL CO.

**Catalogue and Publication
PRINTERS**

Executives:

LUTHER C. ROGERS, Chairman Board
Directors
E. E. LAXMAN, Pres. and Genl. Mgr.
W. E. FREELAND, Secy. and Treas.

*Artists—Engravers—Electrotypers
English and Foreign Languages*

**Phone WABASH 3380 — Local and Long Distance
POLK AND LA SALLE STS., CHICAGO, ILL.**

Executives:

H. J. WHITCOMB, Vice President
City and Country Publication Sales
F. MACCOOMB, City Catalogue Sales
A. R. SCHULZ, Country Catalogue Sales

Announcing a reduction in price—

EASTMAN SAFETY FILM

The film that is identified for Eastman Film quality and Safety Film safety by the words “Eastman” “Kodak” “Safety” “Film”—stenciled in *black* letters in the transparent margin—is now sold at a reduction of three quarters of a cent a foot.

Price of Eastman Safety Film

1 $\frac{3}{8}$ inches wide, 3c net per foot, perforated.

1 $\frac{1}{10}$ inches wide, 2 $\frac{1}{4}$ c net per foot, Eastman perforation.

EASTMAN KODAK COMPANY

Rochester, New York

VISUAL EDUCATION

SEPTEMBER 1922

15cts • 1⁰⁰ a Year



Thou blossom! bright with autumn dew,
And colour'd with the heaven's own blue,
That openest when the quiet light
Succeeds the keen and frosty night.

BRYANT: *To the Fringed Gentian*



TRUE STORY
THE ARCTIC

"Nanook of the North"

Announcement

The Society for Visual Education

INC.

has been appointed by the

**NATIONAL HEADQUARTERS,
AMERICAN RED CROSS**

as the exclusive distributors of all

RED CROSS

and

**JUNIOR RED CROSS
FILMS**

Address all requests to nearest
representative of the

**SOCIETY FOR VISUAL
EDUCATION, Inc.**

Boston, Mass.Major Film Corporation.....
54 Broadway.
New York City.....Society for Visual Education.....
220 W. 42d St.
Washington, D. C.Southern Moving Picture Corp.....
315 McGill Bldg.
Detroit, Mich.Michigan Film Library.....
338 John R. St.
Chicago, Ill.Society for Visual Education.....
806 W. Washington Blvd.
San Francisco, Calif.Edward H. Kemp.....
833 Market St.
Oklahoma City, Okla.H. O. Davis.....
125 S. Hudson St.

The Value of Intellect

an article in the September **BUSINESS PHILOSOPHER** by Horatio W. Dresser, eminent psychologist and metaphysician, will be read by educators everywhere. It deals with the emphasis which has been put on the development of the intellectual faculties, and with the need for direction of instincts and the cultivation of the will and the feelings or sensibilities.

In the October and November issues, A. F. Sheldon, school teacher, philosopher and author, will outline his method of teaching the Philosophy of Service—the Rotarian creed—to school children.

**EVERY SCHOOL TEACHER IN
AMERICA SHOULD READ IT**

There is now appearing a series of articles on **VOCATIONAL GUIDANCE** by H. D. Appleby, character analyst and vocational expert. This is a live topic in educational circles.

You will also be interested in the discussions by well-known leaders on current problems, such as

"The Enforcement of Criminal Law"
"The Allied Debt"
"The Modern Dance"
"Internationalism"

You will find the Department of Applied Psychology non-technical, offering suggestions which you may find valuable in maintaining your health and happiness and attaining success.

The **PHILOSOPHER** will make a valuable and interesting friend for those long winter evenings that are ahead of you. You will always cherish his friendship.

**SPECIAL OFFER TO
EDUCATORS ONLY**

You may have the nine issues beginning with September for \$1.00 (regular price 25c a copy). A dollar bill, stamps or money order will do.

Address

The Business Philosopher

**140 Monroe Ave.
Memphis, Tenn.**

Visual Education

A MAGAZINE DEVOTED
TO THE BUSINESS OF
AMERICAN EDUCATION

Rollin D. Salisbury, President
Forest R. Moulton, Secretary

Harley L. Clarke, Vice-President
B. C. Brumm, Advertising Manager

William Chandler Bagley, Chief Editorial Writer
L. M. Belfield, Managing Editor



Subscription - - - \$1 00 a Year
Foreign Countries - - - \$1.50
Single Copies - - - 15 Cents
Back Numbers - - - 25 Cents

VOLUME 3

SEPTEMBER 1922

NUMBER 7

In This Number:

SCREEN, TRAVELS—Courses in World Understanding..... <i>Ruth M. Whitfield</i>	315
TAKING THE MOVIE TO THE FARMER <i>H. J. Metcalf</i>	317
VISUAL EDUCATION ON WHEELS—St. Louis Educational Museum (Part II) <i>Jean Ramsey</i>	318
"SCHOOL OF ACTING" ORGANIZED BY PARAMOUNT <i>William Chandler Bagley</i>	321
VISUAL EDUCATION BASED ON AN INTELLECTUAL CLASSIFICATION (Part II) <i>Hugo Westerberg</i>	322
RESEARCH IN VISUAL EDUCATION—Editorial <i>William Chandler Bagley</i>	324
DR. ROLLIN D. SALISBURY—Editorial <i>F. R. Moulton</i>	326
FOR BOYS AND GIRLS <i>"Nanook of the North"—The Story Retold for Children</i> <i>Winners of Picture-Reading Contest</i> <i>"Baby Museums" for Your Stereoscope</i> <i>What to Look for Out-of-Doors in September</i> <i>Jokes By and On the Juniors</i> <i>Visualize Mr. Fly's Trail</i>	327
AT THE SIGN OF THE QUESTION MARK <i>Censorship and Children's Picture Shows</i> <i>Must a School Engage a Professional Operator?</i> <i>Formulas for Home-Made Film Cement</i>	333
THE FILMS IN REVIEW <i>The Storm—A Study of Mexico—In the Days of Buffalo Bill—Beside the</i> <i>Zuider Zee</i>	334
KEEPING ABREAST OF THE SCREEN <i>Brief Comments on Current Films for the Special Information of Parents</i> <i>and Teachers</i>	339
THE FILM FIELD <i>Classified Selections of Films Suggested for School and General Non-</i> <i>Theatrical Use, with Addresses of Distributors</i>	341

Copyright 1922, by the SOCIETY FOR VISUAL EDUCATION, Inc., Chicago

FORECAST FOR OCTOBER

Why We Use Movies

Active workers in industrial, educational, religious, agricultural and other fields tell why they depend upon films to help them handle their jobs.

To Talk or Not to Talk

Is it "good pedagogy" to explain the picture while it is on the screen? This important question is helpfully discussed, with practical suggestions on "How to Conduct a Film Lesson."

Visual Education and the Project Plan

In the forward-moving schools of Cicero, Illinois, a unique experiment is in progress. This article tells the story, with the aid of interesting photographs.

Movies—a Link Between School and Community

A grade principal explains how they put school projectors to work in his city to bring community and school together.

Visualized Study

The head of the Massachusetts Department of Agricultural Education outlines his plan of training County Agent lecturers. Graphic charts developed as a requirement of his course are reproduced.

Peggy's Fairy-Tales

A delightfully illustrated story for the Boys' and Girls' department, all about their favorite, Baby Peggy, and her work in making Jack the Giant-Killer and Little Red Riding-Hood "come alive" on the screen.

Published monthly by the Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 West 42nd Street, New York



© K V Co.
BUFFALO, YELLOWSTONE PARK

*Interest
Your
Pupils*

*Let Them
"See" What
They Are
Studying*

THE KEYSTONE SYSTEM FOR VISUAL EDUCATION WILL HELP YOU

600 stereographs—bi-nocular photographs showing depth, distance, perspective—used a few each day, make the lesson enjoyable.

600 lantern slides, duplicating the stereographs, furnish review material.

Slides and Stereographs arranged in convenient cabinets.

A Teacher's Guide, fully indexed and cross-referenced, points out several thousand classroom uses.

Write for classroom demonstration.

KEYSTONE VIEW COMPANY, Inc.

*"Originators of Systematized
Visual Education"*

Meadville, Pa.

*Keystone has purchased the Lantern Slide and Stereoscopic
Department of Underwood & Underwood*



Photograph by Burton Holmes

Ceremonial Tea in Japan

Screen Travels—Courses in World Understanding

RUTH M. WHITFIELD

New Trier Township High School, Winnetka, Illinois

EVERY year, tens of thousands of people visit remote parts of the earth by means of illustrated lectures and travelogs, and millions catch glimpses of the icy desolation of the polar regions, the wild life of Africa, or the strange inhabitants of the South Seas by way of the Weekly News reels of the motion picture theaters.

Since the primary purpose of travel is to obtain intellectual experiences, the result is about the same, whether one goes out to strange lands or whether science and art bring to him the surprises and charm of distant regions.

To travel is costly in time and money, and only the few can afford this luxury. Also, it often involves

dangers and discomforts and always much that is inconsequential. On the other hand, when following the pictured trail of a travel lecturer or news photographer, the ordinary currents of one's life are not interfered with, one is safe and comfortable and provided only with what is truly interesting and significant.

Travelers for the Millions

The pioneer in the field of travel lecturing was John L. Stoddard, who, after serving the public for twenty years, retired in 1897. He preserved the accounts of his travels in the well-known "Stoddard Lectures," which have stimulated the minds and broadened the lives of all who have read them.

Dwight L. Elmendorf, now also retired, carried his audiences to strange lands by the exercise of his strong descriptive powers and by his effective pictures, for his lectures were the polished product of a cultured mind.

Burton Holmes is now in China at a crucial period in its history. He will doubtless bring back artistic pictures illustrative of present-day oriental life, and his travelogs will be vivid and educational. E. M. Newman makes hazardous journeys through rarely visited parts of the world. At present, he is traveling in the interior of Africa to make motion-picture records of its primitive life, which is destined to disappear soon after

the completion of the railroads now planned by the British.

"I Could a Tale Unfold"

How different were the means that were necessarily employed by adventurous spirits of earlier times when they tried to visualize their experiences to others!

In order to show what he had found in the new world, Columbus, on returning to Spain, brought with him specimens of its flora and fauna. De Soto had to be content with crude sketches to supplement his statements respecting the majestic sweep of the Mississippi. When Magellan's bold companions returned from their memorable voyage, they had no photographs nor motion pictures to show what marvels were encountered by those who circumnavigated our planet.

If motion pictures could only have preserved for us a record of the explorations of adventurous voyageurs, of the departure of Columbus from Spain, the struggles of Hudson in the icy Arctic, the landing of the Pilgrims at Plymouth Rock, the conquests of Cortez in Mexico, and of numerous other important events in the settlement of this country, America's early history would not be for most

people an almost meaningless list of names and dates.

Analyzing the Travel Impulse

Many are the reasons why men have traveled. Sometimes overpopulation of a region has caused migrations of great masses, as, for example, when the Asiatic hordes poured over the Ural Mountains into Europe. Sometimes it has been the spirit of conquest, as was the case when Alexander found the world too small for his ambitions; or when Caesar led his Roman legions through Gaul and across the channel to Albion. Sometimes it has been to promote commerce: the Cabots explored our northeast coast while seeking in vain a northwest passage to Asia.

Sometimes it has been to acquire the intellectual treasures of other peoples, as it was when Thales and Aristotle went to Egypt in order to add to Grecian philosophy and science the learning of the Egyptian priests. Sometimes it has been for the purpose of scientific work—von Humboldt, Darwin and Wallace visited the remotest parts of the earth to increase their knowledge of sea, air, land, planets and animals. Sometimes it has been for the sheer love of adven-



AN ALASKAN TOTEM POLE

One of the grotesque totems of Alert Bay on Vancouver Island.

Photograph by E. M. Newman

ture and the satisfaction of overcoming dangers; for instance, when Spanish and Portuguese sailors explored the coast from Yucatan to Tierra del Fuego, or when hardy men dragged their weary feet over the frozen and trackless wastes that surround the earth's poles.

Value of Travel, Real or Reel

The travels of individuals, as well as the migrations of peoples, have been among the major factors that have molded human history. The currents of ideas that followed the Crusades and the voyages of Columbus, de Gama and Magellan have swept around the world and dissipated many of the superstitions that had clouded the mind of mankind during the Dark Ages.

It may well be asked whether vicarious trips of the masses with Stoddard, Elmendorf, Holmes and



AT DALARNE, SWEDEN

One must penetrate to the heart of rural Sweden to find the old-time picturesque, characteristically Swedish dress—cap, bodice, striped apron, and all.

Photograph by E. M. Newman

Newman will have appreciable and beneficial effects. But since it is the average intelligence and purpose of the masses that determine the destinies of democracies, the answer cannot long be in doubt.

Is it only with curiosity that one sees, in moving pictures, his coffee being grown in Brazil, his tea in Ceylon, his sugar in Cuba, his silk in Japan, and his wool in Australia? Is one merely entertained by the sight of salmon fishing and canning in Alaska, lace making in Ireland, diamond mining in Africa, rug making in Belgium and Persia, watch making in Switzerland, and shipbuilding in Scotland? To the

thinking American these flashes on the world's screen bring something more than momentary amusement. He gradually realizes that all of these people contribute to his welfare and happiness—that they are really a part of his world. When



SHIPS OF THE DESERT

Photograph by Burton Holmes

he sees them at work, watches them in their marriage ceremonies or their folk dances, observes them in their various types of homes, and catches glimpses of their children at play, he realizes, perhaps subconsciously, that in spite of the differences in their customs and dress, or the architecture of their cottages, they are really very much like himself—indeed, only distant brothers.

Hence it is that sincere travel lectures are helping to bring about a mutual understanding that will further the brotherhood of man and promote Universal Peace.

Taking the Movie to the Farmer

H. J. METCALF

Iowa State College, Ames, Iowa

THAT the motion picture camera is destined to play a leading part in the education of the farmer in Iowa is a foregone conclusion. In times past this wonderful industry has been instrumental in entertaining its thousands. It is now entering upon a wider and more useful field of endeavor—that of educating the farmer and his family in various subjects dealing directly with agriculture and home life on the farm.

There was recently shown at the Agricultural Extension Department, Iowa State College, a United States Department of Agriculture film entitled "Out of the Shadows," dealing with the subject of tuberculosis on the farm. This remarkably realistic portrayal of the dread disease drives home by visual means the necessity of giving farm animals the tuberculin test, and cannot fail to have great weight in the work for which it was intended—that of educating farmers and stockmen in the things that make

for better live stock and the need of giving them better care.

Why the "Movie" Is Popular

There have developed, along with the growth of the Farm Bureau in Iowa and some of the other agricultural states, a desire and a demand for such film service. In the early days, before moving pictures were quite as common as at present, this service took the form of lantern slides, which were sent out in a limited number to country schoolhouses and community organizations for entertainment purposes almost exclusively.

Today there is a widespread demand for the newer method of visual instruction—the motion picture—and if we do not miss our guess, the film is destined to play a very prominent part in the evolution of agriculture.

Not only has the "movie" become exceedingly popular in the cities and towns, but agricultural colleges, county agents, high schools,

churches, breeders' associations and community organizations are making use of films in their work in ever-increasing numbers. They figure that no program is complete without at least one good "movie" touching some important phase of the organization's work.

The reason for this popularity is not far to seek. The motion picture, through the magic touch of visualization, is able to make clear things which ordinarily are difficult to explain. While the printed and the verbal word have each their place in the scheme of imparting educational information along agricultural lines, there can be no argument as to the worth of the motion picture in agricultural education. It occupies a distinct and worth-while position in this field.

College as Distributing Center

It may be of interest to those who could make use of these mo-

(Continued on page 338)



"SAFETY FIRST" PROJECT

One of thirty similar projects on display in the Current School Work exhibit during May. Houses, church, school, people, animals, vehicles and all the equipment are of cardboard, with design and colors applied in crayons. Small figures at work illustrate occupations like housecleaning, painting, removing rubbish, etc. One group shows a traffic cop regulating pedestrian and vehicle traffic. Another pictures a warning to children to play in the school or public playground or in their own home yards. Another warns against the dangerous habit of playing near the railroad tracks with its heavily loaded lumber train and cars piled with large lumps of coal that threaten to roll off and injure those close by.

Visual Education on Wheels¹

St. Louis' unique Educational Museum supplies the schools with visual helps of every type, from a stuffed alligator, a silkworm's cocoon, a bow and arrow, and a wall chart on the Sahara, to an exhibit on the manufacture of needles, a movie on the lumber industry, and apparatus for experiments in simple science.

JEAN RAMSEY
Chicago, Illinois

PART II

SHOULD you enter a St. Louis classroom at a time when "Indian Life" happened to be on the study program, you would get a new conception of the possibilities of the visual idea in education.

You would see, for instance, boys and girls robed in gaily colored blankets of Indian design, decorating themselves with necklaces made of shells or beads, or trying the effect of feathered war-bonnets and deerskin shirts embellished with beads and elk's teeth. One lad will be enjoying the experience of fitting a real Indian arrow to a real Indian bow. Little girls will be "getting the feel" of baskets and food trays of skillfully woven grasses, or of the curiously ornamented pottery bowls

and crude mixing tools of the Indian housewife.

On the blackboard are chalk drawings of wigwams, canoes, papoose cradles and carrying-baskets, hunting weapons and characteristic Indian symbols. Along the walls hang genuine Navajo blankets, implements of warfare, articles of dress. On a table are arranged peace-pipes and arrow heads, carved dolls and other quaint toys, beaded belts, and head bands showing wonderful craftsmanship. Pupils at their desks are absorbed in stereographs picturing types of Indian homes, or in supplementary readers into which they are delving for information not given in their textbooks. A stereopticon or a motion-picture machine stands

ready to throw on the little screen, where the entire class may see at once, scenes from "Hiawatha," everyday life in a Hopi village, or a grotesque tribal war-dance.

The life of peoples is a phase of geography that never fails to make its appeal to boys and girls. Should the class be studying picturesque Japan, the museum will send on requisition an exhibit which has the magic gift of transforming that far-away land into something as tangible and human as the children in the next room. This exhibit, inherited from the World's Fair, brings into an American school-room actual samples of the lessons prepared by little Japanese children—compositions, drawings, specimens of domestic art. With it may come, in addition to more matter-of-fact collections, fascinating

¹ The first installment of this article appeared in the June issue.

articles of native costume—kimonos, sashes, sandals, coolie hats, fans and parasols. What treasure-trove for boys and girls to whom has been assigned, as the crown of their study, the dramatizing of a scene which shall embody what they have learned about Japan and its people!

Visualizing Science Lessons

Among the most practical services rendered by the museum is the distribution of apparatus for simple experiments in elementary science.

It is always a problem, for example, to convey to young minds a real understanding of such things as the change of seasons; why clouds form; what causes dew and hoarfrost; why the morning mist

of solids under the application of heat:

Apparatus: Copper ball and ring, alcohol lamp or Bunsen burner. Test cold ball and ring. Show that ball passes through ring. Now heat ball over lamp. Note that hot ball will no longer pass through cold ring. What has happened to ball? Plunge ball into water to cool. Wipe dry. Now heat ring. Show that hot ring is a loose fit to ball. Why? Ask children if they have seen blacksmith put tire on wagon wheel. If so, get some one to tell how it was done.

By means of similar equipment and suggestions, the busiest teacher can put flesh and blood on the dry bones of the textbook when her class reaches such topics as cohesion; crystallization and capillarity; the uses of wheel and axle, lever and screw; the Archimedean Principle; the expansion of liquids and gases; the electric bell and the telegraph; lifting, force and air pumps; magnets and sound waves, and the nature of lightning.

In view of these rich services, is it a matter for wonder that Assistant Superintendent Rathmann should declare, "There would be a general cry of indignation if the Educational Museum were to cease functioning"?

Some Interesting Figures

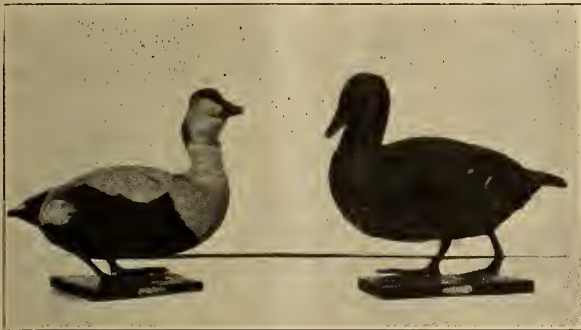
In 1920 the number of groups of museum material delivered reached the astounding total of 80,000. Yet the annual expense per pupil is in the neighborhood of only fifteen cents.

"Every day," reports the curator, Miss Meissner, "we fill our two large motor trucks to the guards to meet the demands of the schools. The daily average of collections transported from and to our headquarters building is about 1,000, each collection comprising from four to twenty articles. Our entire first floor is given over to the 10,000 traveling exhibits, which are ranged on shelves, packed and boxed, ready for immediate use." Our Traveling Library of supplementary textbooks, although the newest feature of the museum's service, issued 35,000 volumes during the past three months. We are supplying about 70 per cent of our schools with four motion-picture films every week."

An Education in Responsibility

If there is any shortage, however minor, in the return shipment the school is promptly sent a "shortage postal." It is a matter of pride with those in charge of receiving the material to achieve a perfect score for their school, and last year fifty-six schools — nearly half of the number served — finished the season without so much as a single shortage. Forty-nine others had no more than two apiece.

One aim of the follow-up system is to educate pupils to a sense of appreciation of and responsibility for the material sent out. So consistent is the policy in this respect that a shortage notice has been mailed



FROM THE BIRD COLLECTION

Last year the museum sent 12,000 bird exhibits to the schools. More than 2,000 individual birds are included in its collection, all of which, of course, are duplicated many times over.

disappears with the coming of the sun. Every teacher senses the crying need of amplifying her presentation of these abstract phases of mathematical and physical geography; but without ready access to the right apparatus the average teacher, hurried and worried by a hundred other urgent duties, is all too prone to rest content with materials at hand—textbook, blackboard, oral explanation.

The Educational Museum solves this problem by supplying her with simple apparatus and by outlining in its catalog many easy experiments which pupils can perform under her guidance. Note, for instance, this suggestion for a demonstration to explain the expansion



JAPANESE EXHIBIT—"OPEN CATALOG" DEPARTMENT

The life of peoples holds a strange fascination for boys and girls—a "human interest" angle from which, as a base, the alert teacher is able to approach practically any subject in the curriculum. These exhibits visualizing Japanese homes and modes of dress were donated to the museum by the Japanese Government itself.



CONSULTING THE "OPEN CATALOG"

Four large rooms are devoted to an "Open Catalog," where typical exhibits from the museum's 1,200 different collections are arranged in the order of the printed catalog. Although this department is primarily for the purpose of permitting teachers to select "face to face" the material they desire to order for their classrooms, groups of boys and girls frequently come here for special study.

to a school which sent back its cotton collection minus a small specimen of paper made from cotton stalks. Although the postal cost more than the slip of paper, which would have been too badly soiled to use again in any event, the rule was rigidly enforced.

The value of this strict standard is apparent in the fact that most of the original material, dating back to 1904, is still in use; that out of 4,000 phonograph records circulated last year, less than half a dozen were broken; that of the 12,000 birds sent out, a surprisingly small number called for repair at the hands of the taxidermist. The mounted ferret, although now badly moth-eaten, has seen fifteen years' constant service.

The "Open Catalog"

On the second floor of the museum building four large rooms are given over to what is called the "Open Catalog." Here in glass cases are displayed sample exhibits typical of the 1,200 different collections, grouped in the same order as in the printed catalog. Teachers may thus familiarize themselves at their leisure with the visual material which is theirs to command, and, if preferred, make up their lists direct from the objects. The illustrations give us two interesting

glimpses of this valuable department.

"Current School Work" Exhibit

An exhibit of current school work, intended to serve as a source of inspiration and suggestion to teachers and pupils, is the most recent extension of the museum's activities. This is a constantly changing display of work done in the manual arts, material developed in connection with the project method, and exceptionally praiseworthy work of any type from any grade. Needless to say, to have one's work chosen for exhibit purposes is looked upon as a signal honor.

Teacher-Training in Use of Museum

Since the city employs in its grade schools only graduates of its own normal school—Harris Teachers' College—St. Louis teachers receive definite training and practice in utilizing the rich resources of the museum. Not only are methods of putting the museum to work taught during the normal course, but in all extension courses the visual method is specifically featured. The 1922 Summer School, for example, announced two courses—Theory and Practice of Visual Instruction, and Demonstrations and Discussions of Visual Instruction. The first presented the underlying theory of,

and justification for, the present popular demand for visual instruction; the other included actual demonstrations of visualized teaching from kindergarten through eighth grade, conducted in the Wyman School, with opportunity after each lesson for analytical review and discussion.

The museum carefully avoids the easy error of insisting upon cut-and-dried ways of using its aids. It says to the teacher in effect: "Here is the catalog. You know what you are going to teach next week. Select what you need to make your teaching easier, more interesting, more forceful, and we will bring it to you on time. It is then up to you to use it wisely." Probably no two teachers use the same exhibit in quite the same way.

In a general way, teachers are urged to remember that pupils and not the instructor should handle the material; that the ground should be carefully prepared before the collections are introduced; that at every step the visual helps should be closely correlated with routine work and materials; and that after studying the material pupils should be required to make the application and draw the logical conclusion, in order to clinch the salient points of the lesson.

"The museum collections are not an educational fad, nor busy-work, nor a cure-all for lazy and indifferent teaching. They are a return to a first principle and a device to restore to classroom instruction the concreteness which in too many cases it has lost."

Is It Worth-While?

Through its Educational Museum St. Louis is enriching the life of city-bred boys and girls with facts and principles of nature ordinarily absorbed only by those reared in the country. It is familiarizing them with a wide range of agricultural, mining, fishing, manufacturing and other industrial processes and products. It is giving them a first-hand knowledge of foreign lands, peoples and products

(Continued on page 340)

"School of Acting" Organized by Paramount

IN the announcement by Famous Players-Lasky Corporation of the establishment of a school of acting for members of the Paramount Stock Company, the optimistic observer of things cinematic sees hopeful augury of a day when the motion picture shall more nearly realize the ideal of those who, with a clear vision of its well-nigh limitless possibilities, are impatient to have it qualify as a true art, and not rest content with the laurels of the "fourth greatest industry."

These, briefly, are declared to be the prime objects sought in organizing the school:

To develop motion-picture actors in purely motion-picture technique, both for the improvement of acting standards and for the artistic growth of the actor himself; to afford members of the company a working knowledge of every element that enters into picture production, from the duties of the cameraman to those of the art director; and to establish a perpetual reservoir of talent from which future star material can be drawn.

"The purpose of this school," says Jesse L. Lasky in a statement issued to the press, "is not to instruct in the fundamentals of screen art, . . . but to broaden the working knowledge of the members of the stock company to the end that they may increase their versatility and have a wider outlook on their art." He continues:

In the arduous work of the studio it is too often the case that an actor finds little time to study anything in connection with his art save the particular role he is called upon to play. But the Paramount Stock Company not only includes

men and women who are the stars of today, but also players who, with an established reputation gained by good work, will be the screen stars of tomorrow. To assist them in their progress, this training school has been organized, because the motion picture has progressed so rapidly that the coming star of the screen must be equipped with a broad knowledge of all phases of his art.

To provide this broader outlook, there are to be courses in such subjects as Pictorial Values, presided over by Penrhyn Stanlaws; Architecture and Interior Decoration, under Max Parker; Cinematography and Lighting, under Alvin Wykoff; Direction, Cecil B. DeMille; Costume Theory, Paul Iribe; Dancing and Fencing, Theodore Kosloff; Physical Culture, Norman Selby ("Kid McCoy"); Motion Picture History, George Melford; Theory and Practice of Photodrama, William DeMille; Acting, George Fitzmaurice; Scenario, Frank E. Woods; Makeup, George Fawcett and Theodore Roberts; Photo-Comedy, James Cruze; Horsemanship, Jack Holt.

Such a background of technical information cannot fail to prove a mighty source of better things for the screen, both in the way of a higher type of individual acting and of better team-work as well. By a system of checking-up reports, Famous Players-Lasky will endeavor to make it practically imperative for every member of its stock company to avail himself of the school's resources, not only for general training, but for special coaching in making the best of a given role. To quote the comment of Adolph Zukor, president of the corporation:

"We believe that actors and actresses, not excepting even the stars, know too little about their own profession—its technical problems and its artistic possibilities. The school in that respect is to be for stars and directors as well as the supporting members of the cast. We hope that it will work for a constant interchange of ideas and understanding." And he goes on to particularize:

Unless a star knows something of the problems of the cameraman and can work to meet those problems, there is a waste of effort. Unless the director understands the efforts of the architect who is designing the sets, there can be no real co-operation. Every person who takes part in the production of a picture has his work and his ideals of how his work should be done. He is devoting, generally, far more than union hours to his work; and yet, if the others with whom he comes in contact do not understand and appreciate, many of those hours are lost.

One criticism advanced against the plan, it is reported, has been that it is likely to produce a "standardization of acting." Mr. Zukor's counter-argument is to the point:

On the contrary, the school works away from standardization. Under the old plan the safest course was to stick as closely as possible to the way things had always been done; in other words, it encouraged imitative work. We hope that we shall be able in our school to encourage individuality by directing the natural ambition of our people along proper lines.

It is a timely and eminently sane undertaking, this project of Paramount Stock Company and School, and discriminating picture-goers, expecting the film—like England's fighters—to do its duty and prove itself worthy of its rich inheritance of opportunity, will follow developments with appreciative interest.

Visual Education Based on an Intellectual Classification¹

HUGO WESTERBERG

Consultant in Industrial Valuation of Men

PART II

THE intellectual development of a social group depends to a very great degree upon the facilities for the transmission of thought from the highest types of individuals down to the lower masses. The invention of the alphabet and various means of printing, first by hand and later by machinery, were the first steps on the

road to an efficient distribution of knowledge.

It is very likely that in our times this means of transmitting thought—i. e., via the printed or written page—has reached its maximum of usefulness. It does not, however, connect with the understanding faculties of man on more than one plane at the same time.

There is a special language needed in addressing each intellectual class, and this fact, taken in conjunction with the necessity of stringing words one after another, as pearls are strung on a thread, makes the whole proceeding unwieldy when attempted on a large scale. Then again, as words are nothing but ready-made signs or symbols, they very often fail to convey the full idea intended, and they are even liable to mislead for the simple reason that they may have one meaning for the sender and another for the receiver.

Film Economizes Time and Effort

A motion picture, on the other hand, permits a broader appeal because it is more independent of this special disadvantage of language. Instead of having to consider first of all the intellectual level of the student, the author working with the film as his medium may devote his attention almost exclusively to the demands of the subject. Therefore, the ultimate goal of educational endeavor may be set higher and still be more easily attained. This use of the motion picture means a considerable saving in time and effort expended on the training of people in large numbers.

Transferring Thinking from Level to Level

The majority of people dwell for the most part on the touch memory level; that is, their thinking is emotional and their motives for action are purely personal. Only with the utmost effort are they able to climb up to the sound



Figure 1

TOUCH MEMORY TYPE

Intellectual Valuation: Thinking slow, lacking endurance; occupied with concrete facts and actions of simple kind.

Physical Valuation: Appetite for profit strongly developed; cautious; willing to take orders.

Moral Valuation: Unreliable and selfish.



Figure 2

SIGHT MEMORY TYPE

Intellectual Valuation: Thinking quick but narrow; learning ability low but practical.

Physical Valuation: Appetite for profit small; desirous of dominating, but incapable of sustained effort; prudent and enterprising in action; unsympathetic and somewhat selfish.

Moral Valuation: Untrustworthy and unscrupulous.



Figure 3

SIGHT MEMORY TYPE

Intellectual Valuation: Thinking quick and clear; power of observation very keen; organizing ability good.

Physical Valuation: Appetite for profit existing but not deciding conduct; ability to command and strength to carry responsibility.

Moral Valuation: Trustworthy; fair, but somewhat exacting in demands on subordinates.



Figure 4

SOUND MEMORY TYPE

Intellectual Valuation: Thinking slow and impractical.

Physical Valuation: Appetite for profit strong; unwilling to take orders; feelings easily hurt; endurance low.

Moral Valuation: Unreliable and tricky.

1. The first instalment of this article appeared in the June issue.

memory level, and those who actually reach it are exhausted to such a point that it is absolutely beyond them to manage the last step, up to the sight memory level of thinking, where light is and judgment rules. They remain on the second plane, learn by heart rules and laws, and live by the word from above. While the use of motion pictures does not, of course, mean that every person can carry every subject to the top—for the limitations of his natural gifts would make that impossible—still, a greater number will develop such ability than would be the case if films were not employed.

A Laboratory for Studying Human Nature

As an example, take the possibilities of motion pictures as a means of helping us to understand the old mystery of human nature.

All dramatic art has for its object the presentation of the conduct of certain individuals in such changing situations and in such manner that their important characteristics are emphasized and held up for the observation of the audience. The success of a play depends, of course, on a number of factors; but one indispensable condition seems to be that the actors shall possess the qualities of the personalities they portray, judged mainly by their features. They must "look natural"—true to life, that is—or the effect will be one of artificiality, which results in neither enjoyment nor useful enlightenment to the audience.

It is generally observed, in considering everyday practical life, that people are not "created equal" in abilities or tendencies, and that no amount of education can succeed in making them equal. In their behaviors they display various characteristics, good and bad; but each one is too busy taking care of his own immediate troubles to give much thought to the matter of wherein he really differs from the rest.

When he watches a moving picture, however, he has an oppor-

tunity to learn the true nature of himself and others. He is brought into contact with lives and surroundings different from his own. Conditions are ideal for concentrated thought. Under cover of the protecting darkness he can watch the reproducing of various phases of life which, were he to observe them in reality, would probably be too fleeting and distant to permit of more than a hazy impression, or on the other hand too close and personal to be judged with calm and coolness.

Film Study Trains Judgment

The importance of the human element thus becomes apparent even to the touch memory man, a type that is unable to absorb such

knowledge through the study of great literature. As the story goes on to a happy ending, through dangers and sorrows, efforts and successes, it is borne in upon him, subconsciously, that a type like Figure 1, for example, would not make a very reliable hero, nor a type like Figure 2 a generous employer. He realizes the lack of wisdom that put Figure 4 at the head of a company of soldiers and set Figure 3 to peel potatoes. He comes to understand why such a couple as that pictured in Figures 5 and 6 can never amass wealth, and why the couple shown in Figures 7 and 8 cannot live together without constant quarreling.

(Continued on page 338)



Figure 5

SOUND MEMORY TYPE

Intellectual Valuation: Thinking slow but clear and practical.
Physical Valuation: Appetite for profit small; feelings easily aroused, but good ability to stick to a purpose.
Moral Valuation: Trustworthy.



Figure 6

SOUND MEMORY TYPE

Intellectual Valuation: Thinking slow, but learning ability fair.
Physical Valuation: Appetite for profit small; persistency of effort lacking; willing to take orders; cautious in conduct.
Moral Valuation: Easily led by temptations of pleasure.



Figure 7

SIGHT MEMORY TYPE

Intellectual Valuation: Thinking quick and clear but superficial.
Physical Valuation: Appetite for profit existing but of secondary importance; executive ability and wish to dominate; critical of conduct of others.
Moral Valuation: Reliable, but inconsiderate of feelings of others.



Figure 8

SIGHT MEMORY TYPE

Intellectual Valuation: Thinking quick and clear but superficial.
Physical Valuation: Appetite for profit fair; wish to dominate and ability to lead; opinionated; critical of conduct of others.
Moral Valuation: Reliable, but inconsiderate of other people's interests.

Research in Visual Education

Editorial Contribution by WILLIAM CHANDLER BAGLEY
Professor of Education, Columbia University

IN THE May number of the *Journal of Educational Psychology*, Professor Frank N. Freeman of the University of Chicago discusses in an interesting way the possibilities of research in the field of visual education. Careful experimentation is needed, he maintains, to solve such problems as the relative value of visual instruction as compared with verbal and objective teaching; the types of material that are best adapted to visual presentation; the amount of detail that pictures, diagrams and maps should embody if their educational use is to be most effective; and the relation of "sensory appeal" to "intellectual apprehension" or the "grasp" of relationships and meanings. Professor Freeman's article apparently sets forth the general program that he will follow in the extensive investigation for which a substantial appropriation has been made by the Commonwealth Fund.

THOSE who are sincerely interested in the progress of visual education will be especially gratified to know that its many possibilities will now be subjected to a penetrating scientific analysis and exploration. This is not to say, of course, that research has hitherto been neglected in this field. The educational use of the moving picture has been made the subject of at least two meritorious doctor's dissertations, as well as of several studies less extended in scope but of a similarly serious and scientific character.

ON the other hand, it is true that many extravagant claims have been made for visual instruction which have not been substantiated by careful experiment, and many of which probably could never be substantiated. The policy of the Society for Visual Education has been decidedly against such claims, and especially against the quite unwarranted supposition that pictures and projectors are to displace—or, indeed, do anything more than supplement—textbooks and teachers. One of the first steps taken by the Society was the appointment of a Committee on Research and Experimentation under the chairmanship of Dean W. F. Russell of the University of Iowa.

IN UNDERTAKING an experimental evaluation of new proposals in education, it is well to determine at the outset just what is "new" on the one hand and, on the other hand, what elements in the proposals may

be assumed already to have established their worth. The crucible of actual practice in itself furnishes the basis of an experiment of large dimensions; for while it is true that practices which are not the "fittest" often survive, it is also true that practices which do survive almost always have unquestioned merit of some sort.

VISUAL education in itself, of course, is no new thing. Pictured illustrations have been important adjuncts to the text of schoolbooks for nearly three centuries. Their value is conceded. Maps and diagrams have even a longer history, and as instruments of instruction in certain fields they are recognized as indispensable. Visual instruction, then, is almost if not quite as old as book instruction. The relatively "new" elements in visual education, which have led to the present wide interest in its possibilities as well as to the extravagant claims already referred to, are the addition of movement to the "still" picture (and to the map and diagram) through the moving-picture camera and projector, and the addition of depth to the "flat" picture and the "flat" diagram through the use of the stereoscope.

EVEN in a scientific age, the first step in determining the probable worth of a new proposal is not experimentation, but a theoretical analysis of what the new proposal promises to do. This gives a basis for experimentation. It represents an especially important preliminary for educational experiment, for the value of methods of instruction depends entirely on the ends sought, and unless one is clear as to the ends one is in no position to evaluate the methods.

THEORETICALLY, the element of movement should improve the educational efficiency of pictures, maps and diagrams in several ways. In the first place, movement "catches the attention" and, by supplying a continuous variety of sensory stimulation, it tends to "hold attention." Whatever the picture, map or diagram may have to teach, then, seems likely, other things equal, to make a more effective initial appeal if movement is added. In everyday language, this advantage is summed up in the statement that moving pictures are "interesting." In the second place, movement increases or intensifies the illusion of reality suggested by the still picture. An important function of the picture in education is so

to stimulate the imagination that one thinks of one's self as actually in, and a part of, the pictured situation. The stereograph, by adding the element of depth to flat pictures, also has this effect of intensifying the illusion of reality. Whether the stereograph is superior to the moving picture from this point of view is perhaps a question that Professor Freeman's study will seek to answer. In any case, it is clear that the contributions of these two new means of visual education toward making instruction more "concrete" may be considerable.

BUT the possibility of making instruction more interesting and more concrete, important as these objectives are, does not exhaust the promises of the new elements in visual education. Interest and concreteness, indeed, are not in themselves ends so much as they are means to other ends. Not a little of the loose talk about visual education is due to a failure to recognize that it is not the mere accumulation of sensory impressions, but rather the understanding and appreciation of *meanings* and *relationships* that constitute the basis of mental growth. Persons like Helen Keller, who have been quite unable to see and hear, have yet achieved a remarkable development of intellect through the meagre avenues of sensory appeal that were left to them.

IF the new elements in visual education merely made certain types of instruction more interesting and concrete, they would contribute something, but on the whole a very limited and relatively unimportant something, to educational progress. They promise more than this. They promise, indeed, to make the understanding of abstract relationships and meanings more effective and economical. This promise is clearest in the case of the moving or "animated" diagram. A drawing that shows the vertical section of an internal-combustion engine, for example, will obviously give one a better idea of the mechanism than will a photograph of the engine. It is true that it is more "abstract" than the photograph, but in emphasizing the significant elements and eliminating those that are not significant it really simplifies—and this, of course, is the ultimate purpose educationally of all abstraction.

SUPPOSE that we add the element of motion to the "still" diagram of the gas-engine. We now have revealed the essential relationships of the various parts of the mechanism in operation: the actual outward motion of the piston with the consequent sucking-in of the gas; the return movement with the compression of the gas; the incidence of spark and explosion; and the delicately timed adjustment of the cycles. It is fairly predictable that a person who

wishes to learn how a gas-engine works can probably comprehend its essential features through such an animated diagram very much more quickly and effectively than he could through studying a "still" diagram, while the latter is superior in this respect to the photographic picture or even to the actual object. This advantage of the moving diagram, however, is an hypothesis and undoubtedly needs experimental substantiation. It is possible, of course, that understanding will come *too* quickly, or that its effect will be lessened because the learner has not had to struggle harder to get the conception.

CLOSELY related to the theoretical advantages of the animated diagram are those of the animated map. Here we have the possibility of making easier and more effective the "grasp" of large movements such as those represented by the "abstractions" of the physiographer and the historian. Changes in the contour and coast-lines of the continents, for example, are now represented by series of maps. By multiplying the maps in number and projecting them rapidly on the screen, the student will be able to see in a few minutes a representation of movements that in themselves extended over millenia. Again it is possible that such a method would be inferior to those now employed. It might, for example, give an erroneous conception of the actual time covered by the movements in question, or it might keep the student from making an effort himself to reconstruct the movement in imagination, and thus relieve him of what might possibly be a most wholesome discipline. Experimentation should answer such questions.

IN THE study of history, too, both time-relations and space-relations must be apprehended, and the textbooks in history make large use of maps as means to this end. From a study of these maps as a supplement to the verbal narrative of the text, it is hoped that the student will grasp the essence of the great "sweeps" of history — far-reaching "abstractions," such as the rise and fall of the Roman empire, the growth of modern European nations, the migration of peoples, the effect of improvements in transportation and industry, and the growth of cities. Here, as in the study of physiographic changes, it is possible that the animation of the map-series would add to the clarity with which these movements are comprehended, *through reducing the time-element to perceptible dimensions.*

IT IS the writer's personal conviction that we have in this possibility of an effective *time-symbolism* the key to the most significant educational contribution of the moving picture. The lack of such a symbolism has been a most serious handicap hitherto, not

only in teaching and learning, but in the basic task of *thinking*—of adequately conceiving of the forces that operate upon mankind not only in space (which we can now fairly well represent), but also through time

(which has hitherto been an element most difficult to envisage and portray). But all this, of course, is only hypothetical—less than that, perhaps: mere personal opinion.

Dr. Rollin D. Salisbury

ON WEDNESDAY, August 16, Dr. Rollin D. Salisbury, president of the Society for Visual Education, passed away. He was struck down by heart failure while near the zenith of his powers. In his passing the Society loses an experienced and able leader; the University of Chicago, the dean of its Graduate School of Science, the head of its Department of Geology, and one of its greatest teachers; American science, an able investigator and expounder; and the wide circle of his acquaintances, a genuine friend.

DR. SALISBURY was a product of the Middle West. He was born at Spring Prairie, Wisconsin; he took his college work at Beloit; and he taught at Beloit, the University of Wisconsin, and the University of Chicago. He had the generous and courageous spirit of the pioneer. He worked with tireless energy. He had the sweet spirit of the prairies.

DR. SALISBURY was fortunate in his intellectual life. He was a student under Professor T. C. Chamberlin, who directed his active mind to science. Throughout his life he was guided and inspired by

his great friend. Together they read in the gravel ridges of Wisconsin the records of the travels of mighty glaciers. In hills and valleys they saw the effects of the resistless masses of ice. Daily they contemplated intervals of time compared to which human history is but a moment. And in the fullness of their powers, they took up the greater problems connected with the origin and evolution of the earth and of the stars that stud the sky. Naturally he grew with his studies and his teaching.

WE WHO knew Dr. Salisbury well mourn our loss. He left us and his labors at sixty-four. We cannot dispel the regret that his years might not have been more numerous. But life is only marked off by the circuits of a whirling world—it is really measured by its experiences and its accomplishments. In terms of these units Dr. Salisbury had a full life. He departed without a protracted and painful illness, and the final picture he has left with his friends is that of a man in the prime of life, his powers unimpaired, with much of accomplishment behind, and with no fears for the future.

—F. R. MOULTON.

Why the Ministers Approve of Church "Movies"

ABOUT ten of the forty-six missions, social settlements and institutional churches under the care of the church extension board of the Presbytery of Chicago have adopted motion pictures as an indispensable part of their service program. Henry Seymour Brown, superintendent of the board, reports:

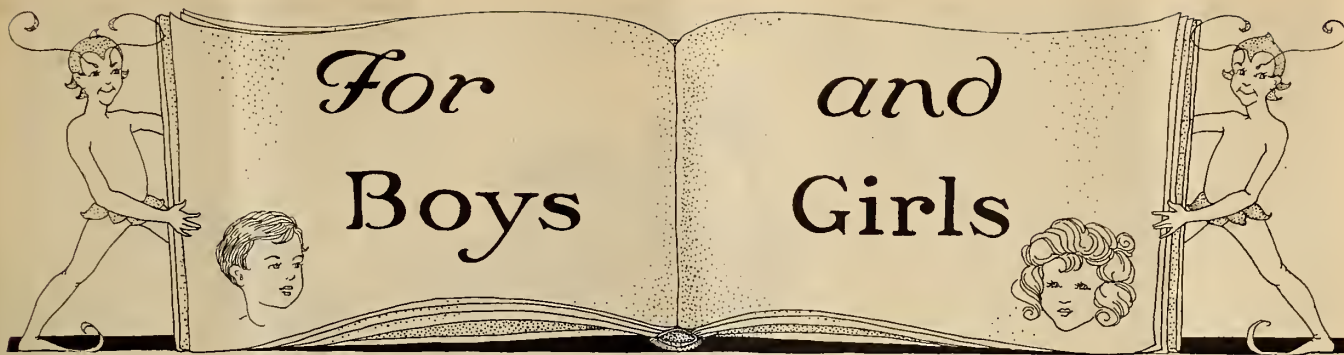
"We are finding the results little short of wonderful from the standpoint of everything beneficial and wholesome. So popular have they become that we are unable to supply the demand for equipment among our other churches. Evidence of the good that is being

accomplished is shown in the fact that police and juvenile court records show the territory immediately adjacent to these institutions—that is, within a radius of four or five blocks—to have less than half the crime and immorality usually prevalent in such districts.

"Movies are an essential factor in the first step of winning boys and girls of twelve to sixteen years of age to the mission. They become acquainted, enter the clubs and classes and athletic programs, and finally are won over to the character-building influence of the Sunday-school. We find that many

boys have been won away from street-corner, crap-shooting environment, from tough poolrooms and incipient criminal associations, and many girls from similarly evil surroundings, to wholesome citizenship ambitions through the initial influence of the movies in our churches.

"The time is near when the moving picture will be as respectable and as indispensable to the community church program as the choir or pipe-organ. It took the Sunday-school forty years to break into the church. The movie is doing it in a decade."



“Nanook of the North”—A True Story of the Arctic

How Mr. and Mrs. Eskimo live and travel with their babies, carrying on the year-round hunt for food in a land where no vegetation can grow

SWIFTLY, through the icy arctic sea, an Eskimo kayak—long, slim, light as a canoe—pushes its way. Apparently the only occupant is the paddler himself, sitting in a small opening in the middle of the boat, just large enough to admit his body. Except for this opening the boat is entirely covered over with sealskin. With a long double-bladed paddle he guides his waterproof craft among the masses of snow and ice.

When he lands upon the frozen shore, his short stocky figure and furry garments make him look for all the world like a big brown bear. His very name, “Nanook,” stands for “The Bear” in the Eskimo language. Nanook, a mighty hunter, is chief of the Itivimuits, an isolated band of Eskimos only three hundred strong, but in their year-round search for food ranging over a territory nearly as large as all England. This is the region of Hopewell Sound, northern Ungava, way up on the northeast coast of Hudson Bay. See if you can locate it on your map of North America.

As Nanook turns to face us and we see his kindly, humorous eyes and broad, cheerful smile, we can't help smiling back as at a jolly, lovable friend. He reaches into the opening from which he has just emerged and one by one brings forth his treasures. (Somehow, that kayak reminds you of Santa's bag—always room inside for just one thing more!)

Nanook's Family

First to be dug out is little Allee, a cunning, shyly smiling youngster, looking like a ball of fur. Next comes Nanook's pretty wife, Nyla the Smiling One, very Japanese in appearance except that, instead of a flowing kimono, she wears

fur trousers exactly like those of Nanook. In her fur hood is tucked away her little snow-baby, Rainbow. Cunayou, another woman, follows with Comock—but whether Comock is girl or boy you'll never guess from the picture, because in Eskimo-land they all dress alike. Last of all come the puppies—baby huskies that by and by will have to work hard for a living, but now are looked after almost as tenderly as the children themselves.

This being the season to travel to the summer fishing grounds, where salmon and walrus are to be caught, Nyla and the others help Nanook make the family boat that is to carry them and their few belongings. This is the umiak, much larger than the slender little kayak, and flat-bottomed instead of canoe-shaped. It, too, is made by stretching hides very tightly over a frame of driftwood.

At the Trading Post

Now the little band sets forth for the “big igloo” of the white man—the trading post. Nanook has much to show for his winter's hunting; not only does he bring quantities of seal, walrus and fox skins, but a catch that speaks of his rare skill and daring—the skins of seven immense polar bears, killed single-handed, with only his harpoon for weapon. Part of the pay Nanook asks of the trader for these costly trophies is glass beads and colored candy!

To the admiring trader Nanook shows off his huskies. “The finest dog-flesh in all the country round!” he is proud to hear the trader exclaim. And Nyla, not to be outshone, displays her own special little husky—baby Rainbow, less

than four months old. For his part, the trader contributes phonograph music and a feast of sea biscuit and lard. Comock, sad to relate, overindulges—with painful results. But does he make a wry face at the label of the medicine bottle that is produced? Not he! An Eskimo boy likes castor oil about as well as you like ice-cream. Who knows—Comock may even have invented that “tummy-ache” of his, just for the sake of the remedy!

One day a wandering ice-field, drifting in from sea, locks up the coast for a hundred miles. Now comes the test of Nanook's skill and fisherman's luck. Carefully crossing the dangerous floes, now atop a cake of floating ice, now plunged to his waist in icy water, he chooses his fishing ground and, lying flat upon a small mat of woven twigs and moss, sets to work. He uses no bait—only two small pieces of ivory dancing at the end of his line. One by one the salmon are speared, although he kills some of the bigger fish by biting their heads.

Catching Walrus

A few days later, a lookout brings welcome word of the appearance of the walrus, “Tiger of the North.” Seven boats put forth, landing near a point where a large group of walrus, their ivory tusks gleaming in the sunlight, are asleep on the shore. These huge beasts, ferocious in the water but helpless on land, are wise enough to post a sentinel on guard. Silently the hunters creep close. Nanook, the most skilled, throws the harpoon. It reaches its mark. On the instant the sentinel gives the alarm



and the herd makes off into the water.

Nanook's two-ton prize struggles fiercely to free itself from the barb that has penetrated its thick, armor-like hide. Its mate, coming to the rescue, tries desperately to lock horns and pull the captive free, while the rest of the herd snorts and bellows in defiance. But the effort is vain, and Nanook's men, pulling their hardest, roll the monster quarry from the undertow. It is skinned, cut up and eaten raw on the spot, for after days of near-starvation, all are too famished to think of waiting until the kill can be taken to camp.

Building the Igloo

All too soon comes the arctic winter, that season of long nights and short, bitter-cold days. The sun is a mocking brass ball in a lead sky; the dry snow blows madly, like sand in a desert storm; the wind makes constant moan. For the sledge to cover even so little as two miles means a weary day's travel for passengers and huskies alike.

Nanook pushes ahead on foot to find a suitable camping ground—deep snow, packed hard by the wind. The site chosen, all but the children lend a hand in building the igloo. First of all, Nanook wets his walrus ivory hunting-knife with his tongue, and instantly it is glazed with ice, making it cut more easily. With it he carves out of the ground great blocks of snow. These he arranges in spiral fashion to make a dome-shaped house, Nyla and Cunayou following him around and stuffing every chink with snow to keep out the piercing cold. You wonder to see Nyla working bare-headed, with her little baby riding snugly in her warm hood, which she calls her "parka."

A low opening is cut in the wall for a door. Next, scraping away the upper layer of snow, Nanook carves out a slab of clear ice. He cuts a block out of the snow wall and in its place sets the ice window, firmly "cemented" with snow. The block of snow is then set up alongside, at right angles to the window, to reflect light into the interior. Isn't that ingenious? From start to finish, it has taken Nanook and his helpers just one hour to build their home!

Adjoining the outer wall, Nanook has built a tiny annex. Here he stows away the puppies to keep them safe alike from the biting cold and the big dogs. The family sledge, too, is put out of harm's way on the roof. If this were not done the huskies would devour the seal-hide thongs.

When Bedtime Comes

Until Nanook makes another kill, the family larder consists of just one small

seal, which furnishes a slim supper. Then all are ready for a short play hour before bedtime. The children go sliding down a convenient snow pile, sometimes on their sleds, sometimes on their backs or tummies. Allee travels in state in a tiny sledge drawn by an equally tiny puppy. With a wee bear made of snow to serve as target, Nanook gives his other small son a lesson in the use of the bow and arrow. Cold sport for a little boy's hands! Never mind, father warns them on his own glowing cheeks, and then it's ho, for bed and dreamland!

Is it a really-truly bed that Allee and Comock and the little snow-baby will be tucked into this chill arctic night? Far from it! The Eskimo, when on the move in his never-ending hunt for food, must carry his bed with him. So he sleeps on warm fur robes—bear and deer skins—spread on the snowy floor of the igloo, with more robes for covering. A soapstone lamp with a wick of moss and seal oil for fuel gives both light and heat while the family prepares for sleep. They surprise us by not going to bed in all their clothes, but slipping out of their daytime furs and lying naked under the heavy robes—even to the baby. It is unbelievably warm inside that little igloo, although care has to be taken not to let the temperature fall below freezing point, as otherwise the snow walls would melt away. (Can you tell what the freezing point of water is, without having to look it up?)

Getting an Early Morning Start

In the morning one of Nyla's earliest duties is to chew Nanook's boots! Why? Why, to restore their softness, since the sealskin becomes stiff and unwieldy overnight. Before the family can get under way for the sealing grounds, Nanook must rub the runners of the sledge with melted snow, which instantly glazes them. If he neglected this, the runners would not slide over the ground, for arctic snow is as dry as sand.

But now comes a delay. Huskies are savage animals, only a step removed from their wolf ancestors, and constant watchfulness is needed to keep them under control. When another husky challenges the kingship of the master-dog, there is a fierce battle in the snow. Nanook and his dog whip bring the fight to an end, and the family at last begins its journey over the vast ice-fields. What do you think Cunayou has in her parka? One of the wee puppies, traveling every whit as comfortably as baby Rainbow in his mother's fur hood! Every one is famished. If you could listen to their talk, you would hear the word "ogjuk" every little while, for

"ogjuk" is Eskimo for "big seal," and a seal hunt is the business of the day.

How "Ogjuk" Betrays Himself

Presently Nanook's sharp, well-trained eyes spy a promising air-hole in the snow. He lets the sledge go on, while he quietly approaches the spot and carefully brushes away the snow. And this is the reason: The seal, as you know, is not a fish but a mammal. Every seal keeps at least one "blow hole" open with his flippers and swims up to the surface at twenty-minute intervals for a supply of air. Nanook, lying upon his twig mat to avoid body chill, waits for the first little cloud of vapor blown from the seal's lungs. Suddenly he rises and swiftly jams his harpoon down into the hole. The stout line fastened to its shank is also looped to his wrist, and so fierce are the seal's struggles under the ice, that again and again Nanook is rolled over on his side or dragged along on his back as he tugs and pulls and shouts for help. You feel that if the hole were larger, he would almost certainly be pulled into it! Others of the party come running up to relieve him at last, he hacks away the snow, and finally the seal—a big fellow—is yanked out.

An Eskimo Banquet

Nanook's sharp knife of walrus ivory slits its body from head to tail, removes the hide and the thick layer of fat, and cuts up the meat. No more is needed to spread the feast, and all "fall to" with ravenous appetites.

Little Allee and Comock, sitting face to face on the snow with one of the seal's flippers between their teeth, are fighting a merry tug of war. You wonder whether this is the Eskimo equivalent of pulling a wish-bone, and what a "little frosty Eskimo" is likely to wish for, in that land without toy shops or parks or movies.

The huskies, excited by the smell of flesh and blood, have been howling, sniffing and snarling like wild wolves. When the remnants of the feast are thrown among the pack, knives and whips are needed to keep the stronger animals from making away with the whole supply. Even at that, two of the dogs engage in a savage fight.

But this delay is dangerous, for it is growing dark and the family is far from shelter. By the time the team is straightened out, a threatening "drifter" has overtaken them. In the teeth of an icy gale, with the blinding snow swirling in clouds about them, the party puts on "full speed ahead." Such cutting blasts make perilous traveling, however, and Nanook realizes that they can never make their own igloo; they would perish

in the storm before it could be reached. They pause to take counsel—and there, looming before them through the snow and the darkness, as by a miracle, is a deserted igloo. You can almost hear Nanook's deep sigh of relief.

The Spirit of the North

After the family has wearily stumbled into this heaven-sent refuge, Nanook's first thought is for the puppies. Placing against the inside wall one of those little mats of sticks and moss, he packs

in the puppies as tightly as sardines in a can, and over and around them erects a dome of snow. Very cozy indeed, you think, must it be in this little igloo within an igloo.

No time is wasted on "getting ready for bed." In a twinkling they remove their heavy fur garments, roll them up for pillows, and snuggle down under the comfy bearskins. Soon all you can see of father, mother and children is a row of dark heads.

Outside, the wind keeps up its noisy bluster and shrill piping. The snow whirls and swirls, and piles in huge drifts upon the icy ground. The huskies sit with their backs to the bitter wind, while the storm coats their shaggy hides thickly with snow. At intervals the master-dog lifts his wolf-like head and sends his mournful howls into the arctic heavens.

The melancholy Spirit of the North rules the night.

Winners of Picture-Reading Contest

THE visual contest announced in our May number—"translating" the pictures which told the story of "How a Little Colonial Maid Saved Her Big Brother from the British Soldiers"—closed June 15. The customary lapse of publication during the months of the school vacation makes this the first opportunity to announce the winners.

Interesting indeed was the work of wading through the papers sent in by the many boys and girls who, after reading the pictures, took time to retell the tale in words. Some christened the clever little heroine Prudence or Betsy; others called her Patience, Alicia, Priscilla or Nancy. Some had her living in a New England town—generally Concord or Lexington—while others established her in the colonial mansion of an old southern plantation. Nine out of ten diagnosed as smallpox the dread disease which was simulated by a judicious application of strawberry jam, but there was a fair sprinkling of votes for measles and scarlet fever, too.

Practically all the contestants, however, united in admiration of the little maid's quick wit. In only one story was credit for the great idea given to the soldier brother; and in view of picture No. 3, which showed the plan "a-borning" in his sister's mind, this paper—though replete with quaintly humorous expressions, and perhaps the most original and sparkling of all those examined—was reluctantly eliminated when it came to selecting the three best.

The first prize of \$5.00 is awarded to Margaret Thomas of Sun Prairie, Wisconsin. She is thirteen years old and was in the eighth grade of the Sun Prairie School when her paper was submitted. Not only is her story com-

plete, accurate, excellently told and unmarred by a single error in English or spelling, but it introduces a number of good points which none of the other papers touched upon—points indicating keen observation and close attention to detail.

The second prize of \$3.00 goes to eleven-year-old Mary McEldowney of Chicago Heights, Illinois. She attends the Washington School and has just completed her sixth grade. In common with several other contestants, little Miss Mary has woven into the plot a very effective and plausible tale of the brother's activities as a spy, by way of accounting for the frenzied pursuit of the redcoats.

The third prize of \$2.00 has been sent to Jean Kelly of Saranac Lake, New York, who is eleven years old and a pupil in the fifth grade of the Main Street School. This prize-winning story, retitled by its author "Yankee Wit," is marked by particularly clever dialog.

Other boys and girls whose stories ranked exceptionally high, and who are entitled to Honorable Mention for the good work they submitted, are as follows:

Laura A. Voelker, Sacred Heart School, Sun Prairie, Wis.

York B. Castle, Lincoln School, Evanston, Illinois.

Olga Anderson, LeMoyné School, Chicago, Illinois.

Robert Hunt, Annabell Lilly, Martha Lawrence, Eleanor Scully, Emma Anderson, Donald W. Marshall and Hazel Wiggers, all of the Whittier School, Oak Park, Illinois.

Marion Barkstrom, Lucetta A. Smith, Lora A. Risteau and Arhdale R. Hlavka, all of the Cicero School, Cicero, Illinois.

Another "visual contest," somewhat different in character but every whit as interesting to work out as the May

"Baby Museums" for Your Stereoscope

LAST year—in the issues of September and October, 1921, to be exact—this magazine published an article describing the plan by which Field Museum is bringing portable museum exhibits of familiar birds, animals, plants and insects into Chicago classrooms, where boys and girls may study them in direct connection with their lessons instead of having to visit the great Museum itself. Pictures showing several of these traveling cabinets were printed, as well as specimens of the label which, fitted into a sliding frame at the side of the cabinet, tells the story of each exhibit.

With the aid of their magic-working stereoscopes, boys and girls outside Chicago may now enjoy and study these wonderful collections. The little brown bat; the ground squirrel in its summer and winter quarters; the funny burrowing crawfish; a habitat group showing two cedar waxwings and their babies; the life-history of the Luna moth and the Monarch butterfly; the making of cotton thread, ivorynut buttons, steel pens and silver-plated spoons; the by-products of corn and coconut — these and other delightful lessons in natural history, nearly two hundred in number, have just been stereoscopically photographed by Mr. H. Lusche of Chicago, with the direct co-operation of Field Museum. On the back of each stereograph is printed the same little story as that which appears in the sliding label of the original exhibit.

The same collection of pictures has also been prepared in slide form for use with the home or school stereopticon.

contest, will appear in an early number. Keep your eyes open for it, boys and girls!



What to Look for Out-of-Doors This Month



A MONTHLY "USE YOUR EYES"
GUIDE EDITED BY LUCILE V. BERG

Taste Not—Touch Not

ALL through the year poison ivy is a menace. In spring and summer it is easily recognized by its leaf, which has three ovate leaflets. The clusters of tiny, pale, greenish-white flowers develop into clusters of small white berries. In the autumn the leaves turn a brilliant orange-red color, very tempting to a child who is out to gather "pretty leaves." The entire plant, throughout its lifetime, gives off an irritating, volatile oil. Even in winter the bare stems and dry leaves are poisonous to most people. Should you accidentally come in contact with poison ivy while on an outdoor tramp this month, take a handful of mud or road dust and scour your hands thoroughly; as soon after as possible, wash with hot water and strong soap—ordinary laun-

dry soap is best. In most cases a saturated solution of sugar of lead will help to heal the rash.

Poison sumac, the most virulent of our contact-poisoning plants, can be readily identified at any time of the year if you will remember two or three simple things about it. In summer and autumn you will know it by its many smooth-edged leaflets and small clusters of greenish-white flowers; in the harmless varieties the leaves have fine-toothed margins. Also, the leaflets of the poison sumac do not lie flat, but are turned slightly edgewise, giving the plant a strangely belligerent appearance. A perpetual lure to the unwary is its brilliant autumnal foliage of flaming scarlet. In winter you can tell the dangerous plant by its drooping clusters of white berries and by the smooth bark of its branches. Any sumac that holds aloft one of the familiar "bobs," looking like a wine-colored cone, is safe, however. Keep your eyes open and avoid all plants bearing leaves with three leaflets, greenish-white flowers and white berries. As the old rhyme puts it:

Leaflets three,
Quickly flee!
Berries white,
Dread the sight!

Beware also of the "choke cherry." No matter how tempting its clusters of dark, reddish fruit may look—taste not! The choke cherry grows usually in the form of a shrub with broad leaves that are dark green above and light underneath and that smell unpleasantly. The fruit of the wild black cherry, however, you may eat provided you do not swallow the stones. It may be known by its tree form, narrow shiny leaves, and shiny black fruit.

The May-apple, or mandrake, which ripens during the latter part of August, may still be found in September. Only sharp eyes, however, will ferret out the yellowed "apples" under their drooping canopies of tattered leaves. Break open an apple and enjoy the sweet, seedy center with its delicious, distinctive flavor; but do not taste stems or leaves, for they are poisonous.

Insect Life

THE dainty gold-eyed lace-wing flies flitting idly about on gauzy green wings have almost finished their work. All during the summer they have been busy laying their tiny, pale-green eggs, which they attached to leaves by delicate silk stalks. These eggs hatch into hungry aphids—six-legged creatures with sickle-shaped jaws which they use to suck the aphids' blood, much as you use a straw in soda-water. You will find it fun to



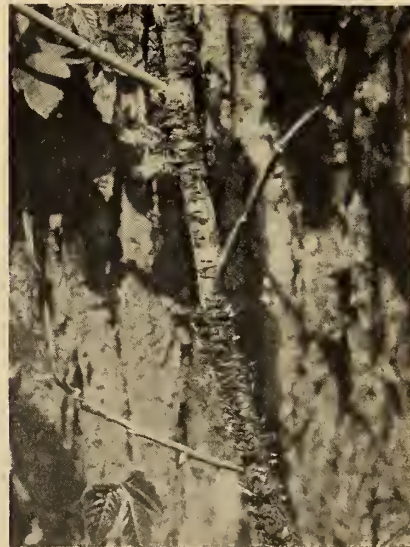
A BULL THISTLE IN BLOOM

The mother plant stood tall and glorious, proud of its hundred beautiful blossoms, each head a full three inches across. Thistles can boast their own special bird and butterfly visitors. Thistle-birds, or goldfinches, put off their nesting until August, waiting for thistledown to line their nests. The seeds, too, supply much of their diet. The thistle-butterfly (our handsome Painted Lady) is so called because its caterpillar feeds upon the thistles and weaves its web among the thorny leaves.



THE WEB OF ARGIOPE

This picture was photographed at night, with a flare, for only at night does Argiope spin her true web. This one measured 18 inches and hung between two clumps of burdock. The tiny white specks are gnats. The larger white masses are unlucky grasshoppers, their whiteness due to the winding-sheets Mrs. Argiope spun to hold them securely until her next meal-time. You will always know Argiope's web by the way she signs her name—that white zigzag down the center.



POISON IVY'S AERIAL ROOTS

When growing in an open field, poison ivy takes the form of a low shrub. If it comes in contact with a post or a tree, however, it assumes the form of a vine, clinging to its support by countless tiny reddish-brown aerial roots that give the stem a hairy appearance. Its rapid growth soon brings it to the top, where once again it takes bush form. Even in winter the bare stems and dry leaves of this plant are poisonous to most people. The best immediate remedy is strong, hot soapsuds.

watch an aphid as, with its beak sunk into a plant stem, it stands almost on its head, blissfully waving its hind legs in the air. Some species of ants are busy tending their little colonies of black aphids, getting ready to take them far below the frost line, where they will be placed on succulent roots; in return for these fresh pastures, they will yield their ant benefactors a ceaseless supply of honey-dew through the long, dark winter months.

Many silk-wrapped clusters of pearly spider eggs are hidden in the folded tips of prickly lettuce and the leaves of the rag-weed. In early September the great black-and-orange spider, *Argiope*, spins her pear-shaped egg sac and leaves it safely swung from twig or burr by strong silk ropes, to be the sport of winter winds.

The black crickets are getting fatter and more noisy as the summer wanes. It is quite horrifying to see Mr. Cricket nibbling away at a deceased brother's thigh-bone while he fiddles a tune on his wings! While it is Mr. Cricket who sings the courting song, he sings it strictly by his own front door, and unless Miss Cricket takes the trouble to

hunt him up she may remain a spinster all her life, for aught he cares.

Feathers and Fur

THE small brown bats that zigzag about the arc-lights are getting their evening meal of insects. They are particularly partial to mosquitoes. Earlier in the summer it is a joy to watch the tiny baby bats; they cling to their mother by clutching the soft, thick fur of her neck as she darts swiftly through the air hunting insects.

Now the mischievous bluejays love to hunt out and harry a sleepy screech-owl, for well they know that the poor, harmless little fellow is so blinded by the sunlight that he cannot retaliate. Whenever you hear the sharp, scolding laugh of the bluejays you can be sure they are up to some deviltry or other.

Tree Notes

ONLY the oak trees with pointed, lobed leaves retain their acorns two years; those whose leaf lobes are rounded drop their acorns at the end of the year.

The green, paddle-shaped key-fruits of the ash tree will not be scattered until next spring. There are many

interesting superstitions about the ash. In a translation from Pliny we find recorded an ancient belief to the effect that snakes so hate this tree that they will go through fire rather than through its branches.

Did you know that the horse-chestnut tree gets its name from the fact that the leaf scars resemble horseshoes?

Flowers of Field and Wayside

THE bouncing-betty, a true democrat, grows with equal happiness in garden or alley. Along the dustiest roadways and railroad embankments, the chicory puts forth its brave blue blossoms. It is a flower of the open road and wilts pitifully when picked. Last year's rosettes of prickly leaves have grown into tall, stately thistles that tower high above the surrounding weeds. The thistles have frequent and lovely visitors in the gorgeous black-and-yellow "thistle-bird"—the American goldfinch—and the dainty thistle-butterfly, whose other name is Painted Lady.

Over every field and wayside, in the guise of goldenrod and wild asters, Nature scatters carelessly, this month of September, the royal colors of the Roman empire.

Jokes By and On the Juniors

Amenities

Mollie came home after a visit for the afternoon with five-year-old Nellie.

"Oh, mother!" she cried, "Nellie was rude and cross all the afternoon. She just quarreled and quarreled!"

"Well," said mother, "if a little girl had treated me that way when I was a little girl, I should have come home."

"Well, I didn't," said Mollie, "I just slapped her face and stayed."

Quantity, Not Quality

"Sammy, you ought to be ashamed of yourself for chasing your grandpa around like that. Don't you know he is short of breath?"

"Short of breath nothin'. He's breathin' more than I am."—*Columbia Jester*.

The Speedy Reply

Teacher: Johnny, what is velocity?

Johnny: Velocity is what a fellow lets go of a bee with.

A Bad Mistake

Billy came home from school bearing every evidence of having had the worse of a fight.

"Why, Billy!" exclaimed his mother. "How often have I told you to play only with good little boys? Good little boys don't fight."

"Well," said Billy through his tears, "I thought he was a good little boy till I hit him."—*Chicago Tribune*.

Spoiling the Fun

The teacher said to her pupils:

"Wouldn't this be a great world if people would all love one another and treat each other with kindness?"

One small boy looked doubtful.

"Wouldn't you like to see everybody treat everybody else with kindness?" the teacher inquired.

After a moment's reflection the boy answered:

"Then there wouldn't be any more Mutt and Jeff pictures."—*Youngstown Telegram*.

Cause for Complaint

Two small boys were quarreling over the possession of a toy bank when a noted local financier, who was passing, stopped and said to the younger:

"Shame on you, my boy. Don't you want him to save his money?"

"I don't care what he does with his money," replied the youth. "But he wants to save mine along with it."—*American Legion Weekly*.

His Idea

Joe wept bitterly over the marriage of his older sister.

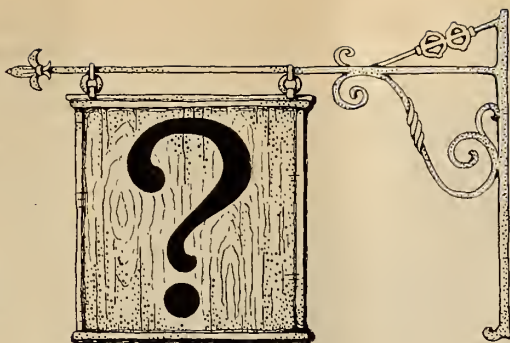
His mother said, "I married."

"Well," Joe replied, "but you came back home."—*Chicago Tribune*.

VISUALIZE MR. FLY'S TRAIL

KNOW of no more convincing experiment as an example of the dangerous trail of the fly than that of letting a house-fly walk over a saucer of nutrient gelatin. After three or four days, each track is plainly visible as a little white growth of bacteria.—*Comstock's "Handbook of Nature Study."*

At the SIGN of the



Readers are invited to submit everyday questions for answer in this department. It is suggested that the queries be direct and specific—narrowed down to a single point—rather than questions of a broad, general character that do not easily lend themselves to treatment in the brief space here available. Address Question and Answer Editor, care of VISUAL EDUCATION.

Is there any likelihood that the censorship movements which are being pushed more or less vigorously in different parts of the country will enable us by and by to send our children to the movie theaters in full confidence that they will see nothing that is unfit for the untrained judgment and plastic mind of youth? — M. M., CHICAGO HEIGHTS, ILL.

Hardly likely—and perhaps hardly desirable, in view of the film's increasing power to minister successfully to the recreational needs of adult picture-goers of discriminating tastes. Theaters derive their chief revenue from adult audiences, and it is scarcely to be expected that they will confine their programs to offerings that are strictly suitable for juvenile consumption. One would neither expect nor desire a public library to banish from its shelves all but children's books. And what treasures of helpful philosophy, of masterly character drawing, of sheer delightful narrative, we should all have missed if censorship had forbidden to us books and plays like "Les Misérables," "The Scarlet Letter," "Vanity Fair," Flaubert's "Salammbô," d'Annunzio's "Paolo and Francesca," Dumas' "Camille," and others of distinctly adult appeal. The powerful movement for "better films" would lose its force and value if a rigid ban on everything not fit for children to see were to be its unswerving policy.

The most effective film censor of today is the American mother. There are hopeful signs in the rapid multiplication of her sources of help, advice and critical information—such things as club bulletins and study courses on current films, the departments many magazines are now allotting to film comment, the lists of recommended "family films" which are regularly issued by various active organizations.

Undoubtedly the most promising and practical step that is being taken to

provide screen fare that shall contain nothing injurious to the child mind, is the special "children's picture show." More and more such selected programs are becoming possible through the installation of motion-picture machines in the schools themselves. This makes it an easy matter to conduct weekly after-school shows, charging a low admission fee, at which both educational and recreational films are run, all booked only after careful pre-review either by the teachers themselves or by a committee of the local Parent-Teacher Association.

Another encouraging development is the increasing number of churches, women's clubs and community organizations of various sorts that are lending a hand in the solving of this important problem by investing in machines of their own. Posters announcing "Community Movies" every Friday evening, and sometimes during the week as well, are a common sight, particularly in the suburbs and the small towns. Special Saturday matinees for boys and girls are becoming more and more the policy of forward-looking theater proprietors, who find it a source of both profit and good-will to work in direct co-operation with the mothers of the neighborhood. Sunday evening "picture services" are steadily growing in favor with the churches.

So far as pictures for children are concerned, then, it appears that school movies and the special children's shows, whether engineered by exhibitors, women's clubs or community organizations, undoubtedly offer the most immediately practical solution of the vexing problem of censorship on behalf of juniors. The movements to bring about national censorship will probably perform their greatest service in the form of the pressure they are bringing to bear upon producers, leading them to forestall criticism by dropping from

their films the pernicious "sex stuff" which has been rampant and at which the demand for censorship is principally aimed.

Is it essential for a school using educational films to engage a professional operator?—D. A. C., LOGANSPOUT, IND.

Not unless local regulations require. As a matter of fact, many directors of visual education prefer to work with their own students in control of the projector. Says the bulletin issued by the U. S. Bureau of Education under the title "Motion Pictures and Motion-Picture Equipment":

"Experience shows that young men and women in the schools who have learned to operate projectors are often able to give a better exhibition than the professional theater operators."

There is no special mechanical skill required for the successful operation of a portable machine; any ordinarily intelligent boy or girl can readily be instructed in the details, and as in other things, "practice makes perfect."

In many localities, however, city ordinances require licensed operators. In such cases the situation is met by having one of the male teachers qualify himself to act in this capacity. Students are eager to take turns in helping with the "odd jobs," such as rewinding, splicing, packing and addressing films to be returned by parcel post or express, returning locally borrowed films in person, and with other similar duties.

I understand there is an easy formula for home-made film cement. Will you kindly print it in your department?—V. A. D., BIRMINGHAM, ALA.

One formula for acetone cement calls for 4 ounces of strictly fresh acetone, half an ounce of ether, and 6 inches of old film. Mix acetone and ether. Remove the emulsion from the piece of film with hot water, cut the film into small strips, and add to the other mixture.

Another cement is made by using equal parts of amyl acetate and acetone, again adding the strips of film. About 3 inches of standard-width film is sufficient for a 3-ounce bottle. It is claimed for this cement that it will neither dissolve the film nor turn it white, and that it may be used for inflammable and non-inflammable stock with equal success. It must be kept tightly corked and worked rapidly, as the amyl acetate makes it dry very quickly. This latter chemical is sometimes difficult to obtain, although it can be ordered from any big photographic supply house if it should not be carried by the local drug store.



The Films in Review

THE STORM

THEATERGOERS who saw this play on the stage doubtless realized that it would ultimately go the way of all good plays and be transformed into a screen drama. Its content furnishes just the type of material best adapted for the cinema in its present state of development. Here is no picture dealing with subtleties and abstractions; instead, there is the elemental, the primitive, staged against a background of large spaces and great forests.

The story resolves itself into the customary triangle—that of two men and a woman—all crowded into a cabin for the unbearable length of a Canadian winter. Under the strain one of these men, an effete product of city clubs, nearly loses his manhood. The other man, unsophisticated and outraged, plays the game fairly to the bitter end—and wins. He wins, for of course virtue must be rewarded and the movie fan go happily homeward.

Reginald Barker, who is responsible for the direction, has handled the plot in an intelligent and sympathetic manner. The tenseness increases consistently until the appalling climax, when

the storm within the soul and the storm in the forest come crashing, and the pitiful little artifices with which man builds himself a fortress are demolished in the white heat of blinding passion.

House Peters, popularly regarded as one of the brightest stars in the cinematic skies, adorns the footage with his manly presence. The chief acting demands, however, are made upon Matt Moore, who undertakes the trying role of the man who just misses becoming a cad. His interpretation, smooth, skillful and utterly believable, proves him a capable and resourceful actor. Virginia Valli, as the provocative little French girl, is easy upon the eyes.

There are many who will maintain that the forest fire, with its hungry, licking flames and magnificent sweep, furnishes the sensation extraordinary of the film. Memory retains, however, the clean-cut flash of a man making a tremendous leap into a racing river and of an almost inconceivable flight through rushing rapids.

There is little in the way of blemishes for the discriminating critic to cavil at. The spelling scene, designed apparently for comic relief, was much too forced

and had the sad effect of making the hero appear ridiculous, which is "bad theater" for heroes. Nor is it probable that the little heroine would stoop to a flirtation while her dear father lay dying in the next room.

Unless all signs fail, however, *THE STORM* will rank as one of the most successful dramatic productions of the year from the box-office standpoint. It has all the necessary attributes of a popular film. As little Manette would say, "You know how 'tis."

Released by Universal.

A STUDY OF MEXICO

THERE is peculiar interest for Americans in everything that touches Mexico. It may be merely a current-news interest, as we strive to keep track of her fluctuating political fortunes; it may be the interest we instinctively accord to ancient civilizations, or that which the traveler feels in strange lands, or even that more or less commercial interest we take in a country teeming with undeveloped riches—"a beggar sitting on a bag of gold," as some one phrases it.

A STUDY OF MEXICO, whether screened for instruction or entertainment, will be found to feed any or all of these "interests."

A surprising amount of the fascination which Mexico has been captured by the four reels of this informing motion-picture study. The film follows a definite plan. The first reel is devoted to visualizing the geography of the Valley and City of Mexico. As we travel on our magic carpet from the Rio Grande toward the capital city, desert palms, cactus patches and tiny desert towns visualize for us, as nothing else could, this sparsely settled, mountainous and for the most part arid land, with its impoverished Indian population. Maps picture the location of Mexico City, hemmed in on three sides by the Continental Divide and on the fourth by low mountains. We discover why this city, although built in the tropics, has such a delightful climate; the secret is its elevation of nearly 7500 feet above sea-level, over 2000 feet higher than Denver.

We visit the great volcanoes of Popocatepetl—foe of our youthful spelling efforts!—and Iztaccihuatl, the latter now extinct. From an airplane we survey the present-day remnants of the five large lakes which once occupied a full tenth of the Valley of Mexico, and the modern thirty-mile drainage canal which today makes impossible a repetition of that overflow of the 17th century, when for several years the city lay under three feet of water.



THE STORM

To which member of this small spelling class is "Teacher" giving the hardest words? One guess!

ONE OF XOCHIMILCO'S CANALS

A Mexican version of Venice, with canals linking the many man-made islands which serve as home sites and garden plots. Centuries ago these islands were built in the waters of old Lake Xochimilco, which then covered an extensive area, and trees were planted along the edges to keep the land from washing away. Today all that is left of the ancient lake is a small pond



and a network of crowded canals; all else is these so-called "floating islands." Some of them are just big enough for a tiny patch of poppies, sweet-peas or tomatoes, but all are carefully cultivated. Flowers and vegetables grown here are piled on flat-boats and towed down the Viga Canal to Mexico City's markets. The hut at the right of the picture, with its thatched roof of grass and its adobe walls, is peculiar to the Xochimilco Indian.



TAKING CARE OF BABY

Little brothers and sisters don't have to cry, "Take me along!" down in Mexico, for it is quite the expected thing for an older child to assume full charge of the juniors. This little Mexican girl, carrying the baby in the convenient Indian style which leaves both hands free, is very typical of the country. Compare the physical development of the Mexican girl, ten years old, with that of the American child, who is only five.



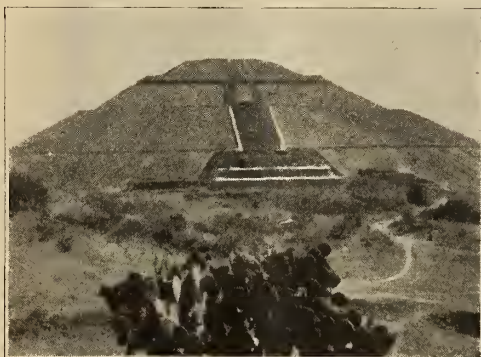
WASH-DAY IN MEXICO

The Indian housewife kneeling in the dirt and rubbing out the family wash in an open ditch is a common sight in Mexico. Indeed, the cameraman says he saw the same ditch serve as wash-tub, dishpan, drinking fountain, and private bath-tub for an enterprising pig. This particular photograph was taken in the venerable and picturesque town of Cuernavaca (Spanish for "cow's horn"), a favorite Mexican health resort.



THE PYRAMID OF THE SUN

A place of worship that was ancient when Cortez came. Its origin was unknown even to the Aztecs, whose high priests dwelt here and whose kings came here to be crowned. Evidently this pyramid and the other buried temple known as the Pyramid of the Moon are the work of a prehistoric tribe, very likely hailing from Father Nile, whose "mysterious route, undoubtedly followed for some set purpose, is marked on the American continent by colossal monuments that even the destructive hand of time seems not to violate." It is thought that a splendid temple housing a giant statue of the Sun originally occupied the summit of the Pyramid of the Sun, and that the pyramids formed the center of a great Toltec city.



SUGAR-CANE IN THE SAN JUAN MARKET

Mexicans have a very sweet tooth and as they saunter through the streets chew sugar-cane as Americans eat candy. Sugar cane is extensively grown and is sold in all the markets. One also sees the popular peripatetic confectioner with a little tray filled with various goodies — candy, preserved fruits and other sweetmeats — all of which are sold in a frankly unwrapped state. Your Mexican is no believer in germs.

An idea of the Aztecs' curious method of city-building is gained from a visit to the "floating islands" of Lake Xochimilco, only a few miles from the capital. From roots, twigs and branches they would weave rafts which they covered with soil brought from the bottom of the lake. Trees were planted along the edges so that their roots might bind the soil and keep it from washing away. At Xochimilco we see these distinctive trees, growing tall and straight like Lombardy poplars, but with evergreen leaves shaped like those of the willow. Originally these man-made islands really floated, so that when the Indian yearned for a change of neighbors or outlook he had merely to tow his island where he listed. After a time, however, the islands became water-logged and sank, and at present are stationary. The streets of Mexico City today are the filled-in canals of that Aztec city of floating gardens which, according to legend, was founded in the marshes of the lake unknown centuries ago.

We experience, visually, Mexico's three climates, determined entirely by altitude: the "cold country" on the plateau, the "temperate country" on its slopes, and the "hot country" below 3000 feet elevation. Some of the capital's sources of food and fuel supplies are pictured: sooty-faced charcoal burners, living in grass huts among the mountains, or trudging to town with their bags and crates of charcoal; Indian farmers plowing with primitive wooden plows on the big haciendas, poling or towing the boats which bring to the city vegetables, fruits and flowers grown in Xochimilco's gardens, or

gathering from the stalks of the maguey plant the sap which, fermented, yields the national beverage, pulque. We see squaw-like women bargaining away their baskets of produce in Xochimilco's untidy street market, rubbing out the family wash against a flat stone in a convenient but highly insanitary ditch, or cleaning corn for tortillas, the universal Mexican substitute for bread.

In the second and third reels points of interest in and about Mexico City are filmed. We visit such places as the famous Zocaco, the geographic center of the old Aztec city, the active center of the modern capital, and the very largest plaza in all Mexico; the National Palace, or government building; parks, playgrounds, monuments, schools and cathedrals; the unfinished National Theater; the Castle of Chapultepec, where we make the acquaintance of President Obregon and his two little sons.

We watch typical sights like the gay Sunday parade in Chapultepec Park; the peddling of flocks of live turkeys from house to house; the shuttering of little shops for the afternoon siesta; the street markets where anything and everything is for sale, from sugar-cane and ice-cream cones to charcoal, pottery, wearing apparel and funeral wreaths; the flower, fruit and vegetable rafts on La Viga Canal; the floating kitchens, gardens and dance-floors of Xochimilco, the Venice of Mexico.

Reel four pictures something of Mexico's fascinating historical background. We see with amazement the ruins of the sacred city of the Toltecs, that vanished race which lived and wrought here centuries before the Aztecs appeared.

Scientists believe that this prehistoric people, before they abandoned the Valley, buried their own city. The Mexican government is now conducting extensive excavations, and constantly new treasures are being unearthed—temples, monuments, friezes, carved inscriptions, and similar antiquities. We visit the great "Pyramid of the Sun" in its restored form, to find an immense five-layer mound of earth and volcanic rock faced with small stones and cement, resembling a nest of giant boxes. The "Pyramid of the Moon," somewhat smaller, stands near by, not yet "dug out" from its centuries-old covering of earth, vegetation and debris. Shrouded in mystery is the origin of these colossal temples. Four centuries ago, when Cortez invaded Mexico, they were in practically the same ruined state as today, and the natives had only a mass of confused and confusing legends to explain them. Savants consider them the work of a great wandering tribe which entered Mexico from the land of the Nile, predating the Toltecs.

Certainly such a film as this will give the newspaper-educated public a brand-new set of impressions of our turbulent neighbor to the south, as well as prove a valuable supplement to club and classroom study of the geography and history of this Old World land on a New World continent.

Distributed by the Society for Visual Education, Inc.

IN THE DAYS OF BUFFALO BILL

WEAIVING numerous threads of fiction into a fabric that is basically historic, Universal's newest chapter-play, *IN THE DAYS OF BUFFALO BILL*, paints vivid pictures of the colorful years when the first transcontinental railroad was being pushed across the wilderness.

The romantic history of this overland route is traced in title and picture: first blazed by the Mormons in 1847, when men called it the Oregon Trail; later serving as the route of the Pony Express; next adopted as the right-of-way for the pioneering Union Pacific; today marking likewise the line of the great Lincoln Highway and the path followed by the first transcontinental airplanes. Only a brief item in the first reel is this recital of the life-story of a road, but it fastens itself like a burr to memory and imagination.

The film bristles, of course, with hard riding and fast shooting, lurid adventure and obvious villainy, hairbreadth



IN THE DAYS OF BUFFALO BILL

Does a vision of the America that is to be flash upon the inward eye of President Lincoln as he signs the Union Pacific Act of 1862, authorizing the building of our first transcontinental railroad?



"And then said Jan to Willem"....for even in serious, industrious Holland one takes time for the joke that cheers.



BESIDE THE ZUIDER ZEE
Mynheer Volendam giving little Gretchen her morning ride up and down the spick-and-span streets of Spotless Town.



The quiet wharves, where the boats lie at rest, attract young and old with a few hours to while away on a sunny Sabbath afternoon.

escapes and melodramatic speeches, and all the other customary serial trimmings. Nevertheless, there is a sufficiently strong historical element to make it class as a semi-educational and certainly as far superior to the general run of serial films.

Only the first three chapters, each of two-reel length, have been viewed to date. These first three episodes deal with the period of the Civil War and the beginnings of work upon the Union Pacific railroad. In the first chapter, "Bonds of Steel," a vastly interesting background is prepared for the romance, villainy and historical events that are to come. Indians on the war-path and around the council fire; close-crowding villages of picturesque tepees, past which rush "the thundering herds" of buffalo; lumbering prairie schooners bringing venturesome pioneers to the new country; swift-galloping riders of the Pony Express, carrying the mails overland from St. Joseph, Missouri, to Sacramento; soldiers from Fort Kearney, the little wilderness post established to protect the men building the road—these alternate with war episodes and White House scenes to give the proper historic atmosphere.

The roles of the hero, Art Taylor, son of the plains, and his pal Bill Cody, later to be known the world over as Buffalo Bill—both daredevil riders of the Pony Express—are played by Art Acord and Duke R. Lee in a way to content even the youngest and most exacting expert on matters of the Wild West. The thread of romance is slender but sufficient, although little knots of inconsistency are visible here and there. With few exceptions, the historical material is well selected and handled. One scene pictures Lincoln's cabinet in 1862, with Seward, Stanton, Welles and other members in discussion. After seventeen years of Congressional debate, a measure authorizing the building of the road—the Union Pacific Act of 1862—has come to the

President for signature. "With faith and vision divinely bestowed, Lincoln sees East and West united in bonds of steel," and upon the screen his vision takes concrete form. Strange indeed would be the child who could not thrill in response to this little peep behind scenes that have gone to the upbuilding of his America.

Famous personages like Sitting Bull, savage chief of the hostile Sioux, and Allen Pinkerton, organizer of the U. S. Secret Service, are introduced into the story with more or less excuse, but always in a way to enhance the interest. There is General Lee tenderly adjusting the blanket of a sleeping soldier. There is Grant, issuing orders and smoking a long cigar. There is the famous incident of the soldier laddie caught asleep on sentry duty, and the affecting scene in which his aged mother appeals to the tender-hearted President for a pardon. This bit is admirably played, particularly by Joel Day in the role of Lincoln.

One fault annoys the critical observer. While the film announces that the greatest care has been taken to adhere faithfully to historical facts, it is exceedingly doubtful whether there is any actual foundation for the incidents which show that the building of the road was hampered by a jealous foreign power whose agent was instructed to prevent, at any cost, the forging of these bonds of steel which were to bring the country into closer union. Research fails to disclose any record of such foreign interference. Fictions of this sort, masquerading under the cloak of history, ought not to have been admitted unless honestly labeled as a departure from the announced policy of strict historic accuracy. Wrong notions, once implanted by this vivid screen method, are difficult to uproot; inevitably they color and distort all the student's subsequent knowledge of the subject.

On the whole, however, *IN THE DAYS OF BUFFALO BILL*, judged from its first three installments, promises to yield something more than empty entertainment and unwholesome excitement to the boys and girls who constitute the serials' chief following. There are many who object on principle to pictures of the continued-in-our-next variety, but if we must have serials, let us have more of this type.

Released by Universal.

BESIDE THE ZUIDER ZEE

ONE interesting by-product of the work of the American Red Cross abroad was the making of films that are like so many chapters in a living book of world travel. Not all of these pictures dealt with Red Cross activities, although the primary purpose in making them was, of course, to report to the people of America upon the organization's work in foreign fields. For purposes of program-making, the Red Cross film library included many motion pictures that are scenics pure and simple, rivaling in technical excellence, artistic quality and popular appeal the most pretentious travelogs of commercial producers.

Brittany, Normandy, Poland, Czechoslovakia, Russia, Italy, Flanders, Bulgaria, China, Algeria, Holland—all these and other far-away lands have lent their picturesque scenery and their quaintly garbed natives, at work and at play, to the making of this picture-book of travel sponsored by the "World's Greatest Mother."

Typical of these one-reel geography lessons is "Beside the Zuider Zee," which visualizes delightfully and unforgettably the little village of Volendam, one of Holland's characteristic Spotless Towns. It is a film that makes you feel very much at home in a land of ubiquitous windmills and canals, flat meadows, black-and-white herds, and tall-masted fishing boats. In the shining waters of the canal "streets" are mir-

rored the steep-roofed houses, with their air of almost painful neatness, and the leisurely procession of Sunday church-goers, brave and very broad in their best clothes—the women and girls in their familiar pointed Dutch bonnets and voluminous aprons, the men and boys in their even more voluminous and baggy trousers, with wooden shoes and round Dutch caps.

Endlessly "chasing dirt," the sturdy Volendam housewives and their hearty daughters are seen doing the family washing at what seems an everyday neighborhood laundry bee held on the canal bank. Next they are flooding and sanding their tessellated stoops, scrubbing their own sections of the narrow cobblestoned street, or polishing their "koperen ketels" until they shine like the noonday sun. We see a stolid Mynheer Volendam prudently stepping out of his wooden shoes before he dares cross the threshold of his home, and placing them with other prudent pairs neatly ranged along an outer wall. Knowing well the penalty of "tracking up" a freshly scrubbed floor, he takes no chances with his domestic peace!

Somehow you have a feeling, as this film unreels, that its makers have been more than usually successful in transplanting that elusive thing called atmosphere. It draws you gently into its own mood and gives you a consciousness of intimate acquaintance with these people, their life of quiet busyness, and their serene, simple pleasures. Director and cameraman exercised rare discrimination in selecting their material, for every scene is rich in human interest and none of the footage but makes a distinct contribution to the story of little Volendam.

The photography is uniformly fine. In many places it has the quality of an etching, notably in the series of

views picturing old men and children idling away a Sabbath afternoon on the wharves, with the town's fleet of barges and fishing smacks lying at rest in the harbor. Equally satisfying are the facial studies of old Jan and his cronies with their "pijps," contentedly disposed on a bench in a sunny spot, swapping Dutch versions of Once-there-was-an-Irishman-named-Pat. Some of these closeups, indeed, would scarcely be out of place in a company of Frans Hals or Rembrandt portraits, so masterly are they in the reproduction of feature and expression and in the play of light and shade. Silhouette photography achieves many artistic effects in the scenes marking a Sunday promenade along the high dike, scenes which are seasoned with a pleasant sprinkle of quiet Dutch fun.

Few there are among the grownups of today who can see a film of this type without a wistful backward look upon the lack-luster geography lessons of their own movie-less youth. Inevitably one recalls that old fairy story of the obedient lad who, having given so many of his after-school hours to helping mother that no time was left in which to learn his lessons, was rewarded by a good fairy who whisked him away on the wings of night to *live* his lessons in dreams. Was not his prize recitation next morning one of the earliest recorded proofs of the worth of visual methods in education?

Veritable fairy-tale lessons are travelogs like these Red Cross geography films, and a true favorite of the fairies is the modern boy or girl who enjoys the privilege of absorbing from a screen so much vivid information that he could get in no other way than by the magic of pictures that move.

Distributed by the Society for Visual Education, Inc.

which offers to Everyman a rare opportunity for intellectual development. That opportunity is his to command at any time or any place, whether his special personal need is the education of character, the acquiring of knowledge, or the training of judgment.

TAKING THE MOVIE TO THE FARMER

(Continued from page 317)

tion pictures in their programs of entertainment or instruction to know that Iowa State College, through its Visual Instruction Service, is in a position to furnish something like seven hundred educational, industrial and agricultural films on a variety of subjects. A list can be obtained by writing the Visual Instruction Department in care of the director, Prof. Charles Roach. This film service is furnished free.

States as Producers

Within the past year or more Uncle Sam, through the United States Department of Agriculture, has taken a decided interest in this method of imparting agricultural information. A number of states have also gone in strong for producing agricultural films, with the vigorous backing of the Farm Bureau and the various colleges.

With the aid of portable projecting machines, the gospel of a better agriculture and industry has been taken through the "movies" into the most isolated sections of Iowa, where we have an ever-growing number of community buildings, consolidated school buildings and churches equipped for motion picture programs.

The pulpit is no coward's castle. It is the church's duty so to direct its children that they will want only what is pure and noble. With the aid of motion pictures of their own selection, this is now easily obtainable.

—REV. DR. SNODGRASS.

VISUAL EDUCATION BASED ON AN INTELLECTUAL CLASSIFICATION

(Continued from page 323)

In short, the films teach him judgment in minor matters affecting his personal welfare, and that is the first step in training on the sight memory level. From a study of other human beings whose environment and social problems are similar to his own, he may learn to distinguish himself as an entity, with certain qualities and inherited gifts susceptible to training, certain duties and responsibilities to be performed. And, recognizing

this much, he may by increasing degrees become capable of sustained effort toward a definite purpose.

Intellectual Growth Through Visual Education

On the whole, therefore, in the light of the conclusions reached in this and the preceding article, we are justified in declaring that visual education—and in particular that type of visual education which is represented by motion pictures—provides a system of teaching



Keeping Abreast of the Screen

Brief comments on current films for the
special information of parents and teachers

The Bachelor Daddy

Amusing, whimsical and thoroughly wholesome, with a strong family appeal because of the five adorable youngsters. Thomas Meighan makes the harassed bachelor very human and lovable. Although the plot is of the thinnest, the film succeeds in providing capital fun for young and old. (*Famous Players-Lasky.*)

Borderland

More or less a paraphrase of the theological ideas on which the plot of "Liliom" and its film caricature, "A Trip to Paradise," was based; that is, that there is a sort of purgatory from which souls are released only after they have returned to earth and accomplished some good deed. The scenes which have an earthly setting are excellently done, and the cut-backs of the 1850 period are interesting. The action occurring in that mythical region known as Borderland, however, is a fantastic mess of cast-iron wavelets, paper snow-storms and exceedingly hot-looking hell-fire. One feels that a more artistic picture would have resulted had these details been shown with less minute realism. Agnes Ayres is splendid in a triple role—two live persons and a spirit. Decidedly not a play for children, in view of such items as betrayal, illicit love-making, "spooky" ghosts, and the like. (*Famous Players-Lasky.*)

The Crossroads of New York

A fast-moving burlesque, making game of the traditional ingredients of "mellerdrammer"—country bumpkin, city siren, rescued heiress, comedy landlady, and a variety of familiar thrills. Played straight, however, so that few audiences recognize its satirical character. The majority, expecting to see a typical Mack Sennett slapstick comedy spun out to six-reel length, are vaguely disappointed. It is sufficiently funny, however, to be good entertainment for those who make no harsh demands in the way of continuity or dramatic logic. (*First National.*)

The Dictator

Richard Harding Davis' novel and William Collier's play in film form. This burlesque melodrama, with its dash of romance and uproarious comedy, makes a capital movie. Wallace Reid might have been a trifle less nonchalant in putting down a South American revolution, but you are willing to let that pass in view of your chuckling enjoyment of the comedy work of Walter Long as the chauffeur, "Biff" Dooley, who pursues the hero all the way to South America in his grim determination to collect a taxi fare. An excellent choice of picture for "family night." (*Famous Players-Lasky.*)

Domestic Relations

A judge—successful, arrogant and cold—and an odd-jobs workman are confronted with identical situations in their domestic affairs, each reacting according to his temperament and stage of mental and social development. Katherine MacDonald, for a change, is given quite an acting assignment and handles it admirably. The picture is not suited for children, the problems involved being outside the field of their experience and interests. (*First National.*)

Evidence

An entertaining though not highly original discussion of the unreliability of circumstantial evidence. Magnetic Elaine Hammerstein does excellent work in the role of an actress who marries into the "400" and becomes the victim of circumstances which are pounced upon by a disapproving in-law as grounds for divorce. Absolutely clean in treatment, although many will feel that the nature of the plot makes it dubious for young people's consumption. (*Selznick.*)

The Five-Dollar Baby

An excellent picture for boys and girls, with its interesting little story of a baby left in pledge to a Jewish pawnbroker in consideration of a five-dollar

loan to the bum who found her. The plot is highly improbable, but there are some rib-tickling incidents developed by the Jewish-Irish atmosphere in which the story unfolds. There are also a number of very fine character studies. Viola Dana is lovable in the part of the little alley-rat who twines herself about the heart-strings of the old Jew. (*Metro.*)

For the Defense

Seldom is Ethel Clayton given metal really worthy of her steel. This story, with its murder mystery and its hypnotizing Hindu, hands the choicest acting plums to ZaSu Pitts, Bertram Grassby and Mayme Kelso. The "big smash," as the ad-man would say, is the swift-moving trial scene, with its effective flash-backs to report the conflicting testimony of the witnesses. Not a children's picture. (*Famous Players-Lasky.*)

Grandma's Boy

A clean and entertaining homily on the text that courage lies not in talismans but in one's self. This five-reel comedy—Harold Lloyd's first full-length picture—traces the miracle wrought in a timid youth when imbued with the belief that he enjoys the special protection of a magic charm which brought his grandfather through the Civil War, not only in safety, but with a medal-covered breast and a General's compliment: "You are no soldier—you're a regiment!" By the time the boy discovers it is only guileful Granny's umbrella handle and not a talisman at all, his lesson of self-confidence has been learned. While not so riotously funny as Lloyd's short comedies, this is a picture that will appeal to young and old. (*Associated Exhibitors.*)

The Gray Dawn

A gripping picturization of Stewart Edward White's novel of 'Frisco in 1852, of the colorful, lawless days that gave work to the Vigilantes. Thanks to a wise director, this is melodrama that escapes luridity. Satisfyingly clean, and really educational in the pictures it affords of a certain phase of our western development. (*Hodkinson.*)

Hurricane's Gal

An amazing blend of superfine photography, masterly direction and utterly absurd story. To ask the screen public to swallow the tale that a girl of Dorothy Phillips' physique could manhandle the husky brutes who make up the crew of the *Tahiti Belle*, is going just a little too far, even for optiences

so sedulously trained to gullibility as those of today. There is a deal of "rough stuff" from beginning to end. The feature is best worth seeing for its matchless ocean pictures. Never before, perhaps, has the appeal of the sea in all its moods, from smiling calm to crashing storm, been so beautifully recorded by the camera. (*First National.*)

Kindred of the Dust

Rare screen fare for the discriminating. Made from Peter B. Kyne's story, the film is thoroughly big and fine—a happy blend of drama, sentiment, pathos and fun. In spots the action is a trifle long-drawn-out and there are a number of overlong titles, but the net result in entertainment is far above the average. Lionel Belmore as the California lumberman known as The Laird, Ralph Graves as his son, and Miriam Cooper as the charming sweetheart, are as human and real as your best friend. This is a picture the whole family may well add to its album of screen memories. (*First National.*)

The Masquerader

A picture that approaches perfection, mechanically and artistically. The cast sparkles with favorite players, chief among them Guy Bates Post, who created the dual role of John Chilcote and John Loder on the stage. It is seldom that a novel which has commanded millions of readers proves equally satisfying in screen form, but there is no doubt that in this case the trick has been turned. (*First National.*)

Rose o' the Sea

Anita Stewart has an exceedingly tame and conventional vehicle in this story of a flower-shop girl who, after assorted hardships, finally marries her sweetheart's father—the picture's sole touch of originality. So well is the production put on that you find your attention "playing hookey" among its technical perfections, instead of following the fortunes of the lovely but per-

fectly uninteresting heroine. No reason to cancel this from the children's list, except for its utter futility. (*First National.*)

The Siren's Call

The Yukon country is the siren in this case and not Dorothy Dalton, who, as often in the past, is a casino girl—a spotless lily in a very spotty environment. The picture gives few opportunities for real acting. There is a good piece of "action stuff" in the form of a fight on a raft. Not a film for which John Junior should be allowed to divert his nickels from his toy bank. (*Famous Players-Lasky.*)

Sonny

This picture gets under your skin, despite a feeling that the recipe called for considerable hokum, that the villainy was "lugged in by the hair of its head," and that the like-as-two-peas resemblance idea has earned a vacation. The story is exceedingly well handled. Richard Barthelmess is delightful in his dual role, and Margaret Seddon is sincere and appealing as the blind mother who little by little has the truth about the young masquerader revealed to her inner sight. Entitled to the family permit. (*First National.*)

While Satan Sleeps

Seeing this picture version of one of Peter B. Kyne's best stories, "The Parson of Panamint," the fastidious picture-goer is tempted to lift the ban from melodrama—so excellently is it done here. Jack Holt does convincing work in the part of an escaped thief who, posing as a preacher, is engaged by a church in a crude little western town, where he works out his salvation. The scenes centering around the death of the dance-hall girl are so beautifully handled that few fans escape without surreptitious dabs below the eye-brows. One wishes a less sensational title had been chosen as a box-office substitute for the original; the film deserves kinder christening. (*Famous Players-Lasky.*)

The Woman Who Walked Alone

An English society drama whose trite story, overloaded with coincidence, is redeemed for many by its fine acting and interesting atmosphere. Dorothy Dalton, Milton Sills, Wanda Hawley and Maurice Flynn head a capable cast. One baffling defect is the failure to explain the heroine's sudden appearance as a busy tavern-keeper in South Africa, hard upon her divorce in England. You mutter "movie license," but fidget over the hiatus none the less. Distinctly a picture of adult appeal. (*Famous Players-Lasky.*)

Yellow Men and Gold

Lively and lurid is this tale of adventure about a treasure hunt. Melodrama of the deepest dye, it has a closing twist that makes you suspect Gouverneur Morris of writing it tongue in cheek. As the pantalooned boss of a Chinese crew, Helene Chadwick is an engagingly different heroine. While, as with all stories of Treasure Island stripe, the plot involves much violence, few parents would strike it off the children's list on that score. (*Goldwyn.*)

VISUAL EDUCATION ON WHEELS

(Continued from page 320)

—concrete sense impressions which not one in ten thousand will ever have opportunity to gain through an actual visit, yet which the poorest and most limited child may enjoy through these effectual "visual visits."

In a very practical way the museum is applying that wise saying of Comenius in which is summed up the whole spirit of visual education:

"As far as possible, men are taught to become wise, not by books only, but by the heavens, the earth, oaks and beeches; that is, they must learn to know and examine *things themselves*, and not the testimony and observations of others about these things."

JUST FINISHED!

A new set of

Stereoscopic Pictures and Lantern Slides on Natural History

These life-like pictures, far superior to ordinary photographs, are a splendid help in giving Visual Instruction. Complete descriptive label accompanies each stereograph, printed directly on the back.

Sample collection and complete list on request.

H. LUSCHE

434 N. Parkside Ave.

Chicago, Ill.

MOTION PICTURE USERS

Schools, Churches, Institutions, Manufacturers and other non-theatrical users, contemplating the purchase of motion picture machines and films, should obtain a booklet of valuable information which is supplied without cost by

The Associated Manufacturers of Safety Standard Films and Projectors, Inc.

Suite 1419, 440 4th Ave., New York City



The Film Field

IN OFFERING these selections VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from the data given out by the producing companies. In general, films should be viewed by qualified judges before being shown to school children. All entries are one reel in length unless otherwise specified. The producer is indicated by the letter *p* following the sketch, the distributor by the letter *d*. For addresses consult list in this issue.

AGRICULTURE

COTTON—GINNING AND MARKETING. A two-reel demonstration lesson taking up the various types of cotton and cotton bales. (*p* and *d*, U. S. Dept. of Agric.)

BACK TO THE FARM. Two reels portraying the revolution brought about by the application of electricity to farm work, through a series of scenes taken on a western ranch. This film shows in a vivid way the generation and transmission of electrical power. (*p* and *d*, Gen. Elec. Co.)

UNCLE SAM'S PIG CLUB WORK. A single reel picturing various steps in the formation of Pig Clubs among boys, and telling the story of one boy's success in raising a prize hog. (*p* and *d*, U. S. Dept. of Agric.)

DAIRY CATTLE: BREEDS, TYPES AND CHARACTERISTICS. The first of a series of three films on dairy cattle and dairy management. This reel pictures the five important breeds—Holstein, Jersey, Guernsey, Ayrshire and Brown Swiss—together with the characteristics of each type, its origin, and the history of its introduction into the United States. Excellent animated diagrams present the quick and economical effect of a pure-bred bull in improving a herd. (*p* and *d*, Society for Visual Edu., Inc.)

CHINCH BUGS. Visualizes the damage done by chinch bugs, their mode of life, and how to combat them by such methods as barrier, burning and crop rotation. In view of the fact that in Missouri chinch bugs impose an annual \$5 tax on every man, woman and child, and that they do between one and two million dollars' worth of damage to Illinois crops every year, a film of this type would appear to be indispensable to the education of rural communities. (*p* and *d*, Homestead Films.)

GEOGRAPHY

HUCK FINN'S COUSINS. Little children of the Philippines, Java and Siam at their games and household tasks, showing their quaint clothes and strange amusements. The cartoon which closes the reel should be omitted. (*p* and *d*, Goldwyn.)

SUCH IS LIFE IN AMSTERDAM. Everyday scenes in the cheese market at Alkmaar, the streets of Amsterdam, etc. (*p*, Hy Mayer; *d*, Robertson Cole.)

'NEATH POLAND'S HARVEST SKIES. Picturing life in countryside and village during the happy harvest season, with the peasant dances, holiday festivities and weddings that mark its close. Quaint and beautiful are the costumes of these natives from the region west of Warsaw, hand-woven from the "rainbow wool" peculiar to the district. (*p*, Amer. Red Cross; *d*, Society for Visual Edu., Inc.)

OVER THE WHITE PASS. From the Skagway to White Pass by various methods of transportation, and then into the Yukon territory. Many Alaskan wonder-spots are viewed through the eyes of that famous traveler, Burton Holmes. (*p*, Burton Holmes, *d*, Natl. Non-Theat.)

LONDON. Urban Classics, No. 135. Interesting glimpses of Trafalgar Square, National Gallery, Nelson Monument, Admiralty Arch, War Office, Whitehall Palace, Horse Guards, changing the guard, King riding to Parliament, 10 Downing Street, Houses of Parliament, Big Ben Tower, Westminster Abbey, and the like. (*p* and *d*, Kineto.)

CENTRAL PLAINS. One of the series of Regional Geography reels. Agriculture, the most important industry, is studied by way of closeups taken in different sections, picturing wheat-growing, stock-raising, dairying, poultry farming, etc. A type study of modern farming methods is included. There are intimate glimpses of cities, of coal and copper mines, of ore boats docking close to the steel mills of Chicago and Gary, of lumbering in Wisconsin, Michigan and Minnesota, limestone quarrying in Indiana, etc. (*p* and *d*, Society for Visual Edu., Inc.)

HEALTH AND SANITATION

THE KNOWING GNOME. A novel and interesting picture designed primarily to impress upon children the value of personal hygiene, but of interest to grownups as well. It tells the story of the wisest and busiest of a family of little men high up in the mountains whose duty it is to watch over the world's treasures. This little man takes in hand two children, Betty and Bobby, and leads them to happiness by showing them how to take care of their health. (*p*, Amer. Red Cross; *d*, Society for Visual Edu., Inc.)

REVELATIONS BY X-RAY. Animated drawings visualize the electrical action in the production of X-rays, so clearly that a child can understand. Demonstrations show the power of X-rays to reveal the inner structure of objects such as wood, steel, cast iron, and the hidden wheels of a clock. Scenes showing the action of the bones of hand, wrist, elbow, knee, ankle and foot, with an X-ray view of the entire body, picture what modern science is doing for the benefit of mankind. (*p* and *d*, Gen. Elec. Co.)

GETTING ACQUAINTED WITH BACTERIA. Introducing the child to the wonderful field of microscopic organisms, and showing that most bacteria are as harmless as buttercups. Presents the essential facts about the way in which bacteria are grown and handled in the laboratory. The three typical shapes—coccus, bacillus and spirillum—are demonstrated. Size comparisons that appeal to the child-mind make plain the extreme minuteness of bacteria. This reel is an excellent foundation for lessons in both sanitation and nature study. (*p* and *d*, Society for Visual Edu., Inc.)

HISTORY AND CIVICS

HISTORY OF TRAVEL. From primitive man's cradle on his mother's back to modern man's airplane, this film traces the development of transportation. In between come such matters as the sled, the evolution of the wheel, the first wheel-barrow invented by the Chinese, the sacred bulls of India, the travois of the American Indian, prairie schooner, Irish jaunting car, early locomotives, evolution of bicycles and motorcycles, early automobiles, electric locomotives, etc. (*d*, Natl. Non-Theat.)

SKYLAND. Grandfather tells his grandchildren some of his experiences with Indians in the West, bringing in much interesting information about their habits, customs, chieftains, etc. (*p*, Prizma; *d*, State Rights.)

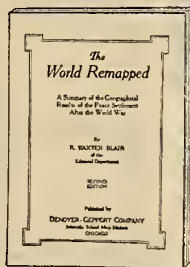
FRENCH EXPLORATIONS IN NORTH AMERICA. Animated maps trace the main routes of the great French explorers, traders and missionaries, and scenes visualize the country they traversed. Showing the steadily growing area of French control, the map

Worth Its Weight in Gold!

Yours for 20c. Send stamps or coin.

The World Remapped

By R. BAXTER BLAIR



An 80-page book summarizing the changes in World Geography by continents. Every teacher of geography and history should have it on her desk for ready reference.

WHAT OTHERS SAY:—

"It is a monument of thorough and conscientious work, and more complete and up-to-date than anything else I have seen on that subject. It will help teachers greatly."

USE COUPON

Denoyer-Geppert Company

Scientific School Map Makers

5235-5257 Ravenswood Ave.

Chicago

Name

Grade

Address

(V E 9-22)

makes clear how the French were blocking the westward spread of the English colonies. The pupil sees that the conflict which has gone down in history as the French and Indian War was inevitable. (p and d, Society for Visual Edu., Inc.)

HOW IT IS DONE

THE PATH OF A LOG. An exposition of the lumber industry in Sweden, which has the interest of a scenic and the educational value of an industrial. (p, Swedish Biograph; d, Natl. Non-Theat.)

A WOOLEN YARN. A picturization of the woolen industry, from the sheep shearing to the finished product. The various methods and apparatus employed in carding, spinning and weaving, from the primitive Indian to our modern factory worker, are interestingly visualized. (p and d, Gen. Elec. Co.)

ARMS AND LEGS. A sport pictorial, including shots of football at Syracuse University; handball at Brighton Beach; tug-of-war at Wellesley; country boys playing leap-frog; M. J. McGrath tossing 56-pound weight; B. J. Wefers in running and jumping stunts; auto races at Danbury; college rowing, baseball, high jumping. Slow motion photography. (d, Arrow.)

LITERATURE

THE LITTLE MATCH GIRL. An adaptation of Andersen's beloved fairy tale, with Madge Evans as the appealing heroine. In 2 reels. (p, Prizma; d, State Rights.)

DICK WHITTINGTON AND HIS CAT. A 3-reel picturization of the famous old story on which we all doted in the days when our grade readers marked the limits of our literary rambles. (d, Lea-Bel)

MARK TWAIN. One of the American Author Series. Shows pictures of the house where he was born, where he passed his boyhood days, the Fifth Avenue home where the last years of his life were spent, etc. His story of a man who would bet on anything is picturized, with titles quoted from the story. (p and d, Kineto.)

NATURE STUDY AND OTHER SCIENCES

HONEY MAKERS. A reel suitable for popular as well as educational entertainment. All the intimate details of the domestic life within a bee-hive are laid before the eyes of the public with pitiless publicity. (p and d, Pathe.)

LIFE OF THE HUMBLE BEAN. This very useful and common article of food has many remarkable stages of development. Here is an educational film calculated to inspire respect for the way in which Nature moves her wonders to perform. (p, J. M. Bock; d, Natl. Non-Theat.)

SCIENCE AT HOME. Kineto Review No. 204. Chemical experiments with crystals of copper nitrate, wrapping them in tinfoil, basis of "Pharaoh's Serpents," nitric acid on metallic mercury, calcium phosphide in water emitting evil-smelling gas, calcium carbide and phosphide destroying water, oxyacetylene blow-

ing up bucket of water, cutting sheet iron, lycopodium sprinkled over flame causing sheet of fire, etc. (p and d, Kineto.)

TOADS. A film that pictures the complete life-cycle of the common garden toad and the tree toad, or Pickering's hyla, from egg to tadpole, from tadpole to the mature batrachian. This strangely fascinating life-history is presented with a sprinkling of humor, and in such a way as to stimulate the child to make further observations of his own, to teach respect for the toad's right to live, and to show that it is not only perfectly harmless, but a valuable little servant of the farmer. (p and d, Society for Visual Edu., Inc.)

NEWS REELS AND REVIEWS

PATHE REVIEW No. 162. A thrilling insight into real life in the Arctic is afforded by a series of views showing polar bear hunters of northern Siberia. Other subjects included are super-artistic shots of the St. John's River in Florida; police dogs of South Africa; the mile-long bridge over the Firth of Forth in Scotland—the world's greatest bridge; and a Pathecolor special, "The City of Arles and Arlelatum." (p and d, Pathe.)

INTERNATIONAL NEWS No. 59. Scenes from the American Passion Play recently given among the hills of Hollywood, Calif.; Johnny Weissmuller, "the human hydroplane," breaking the 440-yard swimming record at a championship meet, with slow motion to analyze his strokes; the U. S. Army Air Service showing how, in future wars, gas bombs may be dropping with deadly effect upon enemy infantry. (p and d, Universal.)

RECREATIONAL PROGRAMS

ONCE UPON A TIME. A 1-reel pictorial, showing boyhood games in old haunts, with verse titles by Grantland Rice. (p and d, Goldwyn.)

YOUNG SHERLOCK. The story of a boys' club, with trained horses 'n dogs 'n ever'thin'. In 2 reels. (p and d, Pathe.)

THE SLIM PRINCESS. A clean, humorous, typical George Ade comedy, made from his popular book. The tale of a Turkish beauty who is sent to America to put on weight in order that she may win a good Turkish husband. 5 reels. (d, Lea-Bel.)

GINGER FACE. One of the popular Century comedies, telling a breezy, humorous story of boy life. In 2 reels. (p and d, Universal.)

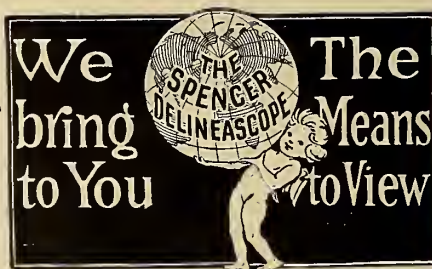
THE ROAD TO LONDON. A light, clean and amusing comedy, all about the Lady Emily and her American admirer—impersonated by Bryant Washburn—and the merry chase they led the viscount who would wed the pretty lady. The film, made in England, offers many views of the Thames, Windsor Castle, Windsor Village, London beauty-spots and similar old-country sights. 5 reels. (p and d, Pathe.)

CHRIS AND THE WONDERFUL LAMP. A fantastic comedy based on the Aladdin tale in the Arabian Nights, telling how the genie carries out Chris's orders. Some intensely interesting and bewildering effects are obtained through the clever use of double exposure. In 4 reels. (d, New Era.)

Where to Book These Films

ONLY producers and exchanges whose films are included in this month's instalment of "The Film Field" will be found listed here. Principal offices only are given, on account of space limitations, although the larger film companies maintain a great many branch offices. Inquire location of nearest branch when writing to main office.

Arrow Film Corporation, 220 W. 42d St., New York City.
General Electric Company, Schenectady, N. Y.
Goldwyn Pictures Corporation, 469 Fifth Ave., New York City.
Homestead Films, Inc., 7510 N. Ashland Ave., Chicago.
Kineto Company of America, Inc., 71 W. 23d St., New York City.
Lea-Bel Film Company, 804 S. Wabash Ave., Chicago.
National Non-Theatrical Motion Pictures, Inc., 232 W. 38th St., New York City.
New Era Films, Inc., 736 S. Wabash Ave., Chicago.
Pathe Exchange, Inc., 1600 Broadway, New York City.
Prizma, Inc., 110 W. 40th St., New York City.
Robertson-Cole Company, 723 Seventh Ave., New York City.
Society for Visual Education, Inc., 806 W. Washington Blvd., Chicago.
State Rights—Write producer for name of local distributor.
U. S. Department of Agriculture, Washington, D. C.
Universal Film Manufacturing Company, 1600 Broadway, New York City.



For projection of lantern slides in the school, lodge, church, family circle; no place too small or too large for the

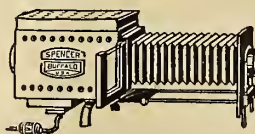
SPENCER DELINEASCOPE

It's as far ahead of the old Stereopticon as the Automobile is of the wheelbarrow. Five models. Prices from \$25.00 to \$185.00.

Send for illustrated folder

SPENCER LENS COMPANY

Buffalo, N. Y.



SIMPLICITY
DURABILITY
EFFICIENCY

Correct English—How to use it

JOSEPHINE TURCK BAKER, Editor
A Monthly Magazine—\$2.50 The Year
Send 10 Cents for Sample Copy to

Correct English Publishing Company
Evanston, Illinois

PRICES SMASHED \$3.00 DOWN

10 Days FREE Trial World's best makes—Underwood, Remington, Oliver—at big saving. Every machine fully rebuilt to look and work like new. Guaranteed for 10 years. Send no money—big Free Catalog shows how to save money on type writers. Easy terms. Write today.
INTERNATIONAL TYPEWRITER EXCHANGE
177 N. State St. Dept. 00 Chicago





SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

The Industrial Film Division

— of the —

Society for Visual Education

Specializes in the production of high-class films for

Sales Promotion
Advertising

Propaganda
Welfare

Instructional Purposes

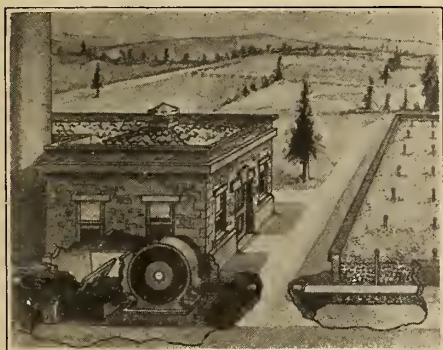
Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.

We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

Industrial Film Division SOCIETY FOR VISUAL EDUCATION, Inc.

806 W. Washington Blvd., Chicago



TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA

SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics, Health and Sanitation, and Vocational Training are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

Each title is a single reel unless otherwise indicated.

All films are printed on non-inflammable stock, standard width.

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands
A Study of Mexico (4 reels)

Nature Study

Where Plants Live
The Monarch Butterfly
Samia Cecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Greenbottle Fly
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Vocational Training

Bee Culture (4 reels)
Dairy Management (2 reels)
Dairy Cattle Selection
Dairy Cattle—Types, Breeds and Characteristics
The Engine Lathe and Its Operation (7 reels)
The Milling Machine and Its Operation (8 reels)

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

**For prices and other details regarding SCHOOLFILMS
write direct to headquarters**

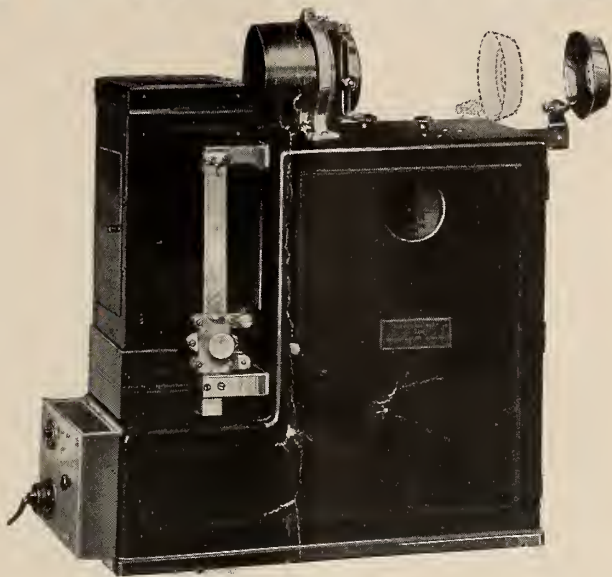
All RED CROSS and JUNIOR RED CROSS films are distributed
exclusively by the Society for Visual Education, Inc.

The Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 W. 42nd St., New York

New Acme Shows Still Pictures from Film



Improved Acme S. V. E. combined motion-picture-and-stereopticon projector, which shows still pictures from film.

Gold Glass Shutter Stops Heat But Allows Free Passage of Light

The new improved Acme is the only motion-picture projector with a light powerful enough to give satisfactory results, which can be stopped to show still pictures at any place in the film without using any liquid or cooling condensing system.

The still picture device on the new Acme is simple, automatic and effective. It is an exclusive feature patented by the Acme Motion Picture Projector Company. It has been tested in actual use on projectors for more than a year.

It adds 100 per cent to the usefulness of motion pictures.

With the new Acme teacher, preacher or lecturer can stop the motion picture at any time and hold a still picture on the screen for any length of time, while he emphasizes a particular point in the film. There is absolutely no damage to the film.

This new feature is now installed on all Acme Projectors.

Other Features of the New Acme

Metal magazines entirely enclose film reels inside projector. New type fan gives maximum ventilation. Independent motor-driven rewind is controlled by one button at front of case. Improved take-up insures even tension on film and prevents lagging. Instantaneous focusing and framing devices operate while film is in mo-

tion. Framing never changes size of loops in film. Pilot lamp illuminates interior for threading. Complete oiling system. Perfect design and construction insure noiseless operation. Every operating button and switch is plainly marked to show its function. Guaranteed.

ACME MOTION PICTURE PROJECTOR COMPANY

806 W. Washington Blvd., Chicago

You're sure it's safe

EASTMAN SAFETY FILM

Made specially for Portable Projection
and identified by the words "Eastman"
"Kodak" "Safety" "Film," stenciled in
black letters in the transparent margin.

Eastman Safety Film is furnished
in two widths, $1\frac{3}{8}$ inches and $1\frac{1}{10}$
inches, Eastman perforation.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

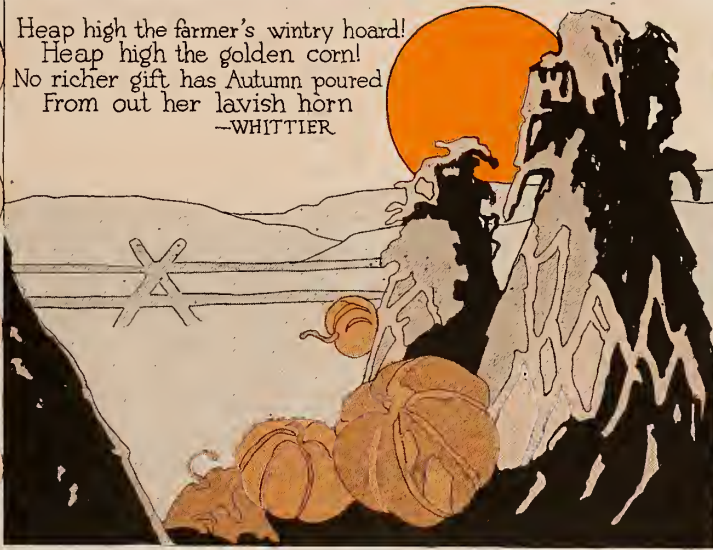
VISUAL EDUCATION

OCTOBER - NOVEMBER
1922

15cts • 1⁰⁰ a Year



Heap high the farmer's wintry hoard!
Heap high the golden corn!
No richer gift has Autumn poured
From out her lavish horn
—WHITTIER



SCHOOL--Y.M.C.A. "Why We Use Movies"
PURCH..BUSINESS.

The Henry Ford of Literature!

Frank Harris, World-Famous Critic, Writes in Pearson's: "It Seems to Me He Well Deserves the Title, Because He Produced Hundreds of Famous Books for a Few Cents Each."—The St. Louis Post-Dispatch Calls Him "The Northcliffe of America."

"Literature's Impresario."

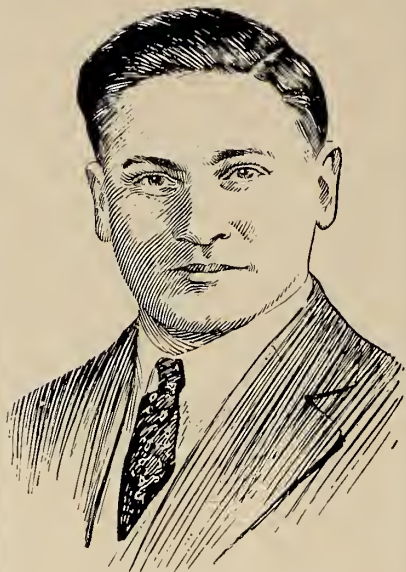
Under his own signature, Mr. Frank Harris tells how E. Haldeman-Julius has sold more than 20,000,000 of his books in the last three years "and so has come to nation-wide reputation." He continues: "No greater, more beneficent work could be undertaken."

Mr. Harris calls E. Haldeman-Julius "The Henry Ford of Literature" because he had the courage to break away from the tyranny of publishers' wasteful methods and disgracefully high prices. Mass production—20,000,000 in three years—and now he is labelled "The Henry Ford of Literature."

Mr. Haldeman-Julius appreciates the compliment. He also notes that the St. Louis Post-Dispatch calls him "The Northcliffe of America." An editorial calls him "Literature's Impresario." The Chicago Daily News says Mr. Haldeman-Julius has moved the literary capital of America to Girard, Kans., where the enormous Haldeman-Julius plant is located.

Not a Nation of Low-Brows.

Mr. Haldeman-Julius has won a "nation-wide reputation" because he be-



E. HALDEMAN-JULIUS

Why does Mr. Frank Harris call this man "The Henry Ford of Literature"?

lieves this is NOT a nation of low-brows. The American people want meat, not marshmallows. They want books on serious subjects—they are not afraid to think. And because Mr. Haldeman-Julius issued his books to sell at a few pennies per copy the American people responded spontaneously. His success has been sensational because his ideals are sound and his methods are practicable.

Mr. Haldeman-Julius has selected a New Library of 25 volumes, which he is offering at an absurdly low price. He believes that once the contents of the following 25 books are absorbed and digested, a person will be well on the road to culture. And by culture he does not mean something dry-as-dust, something incomprehensible to the average mind. Genuine culture, like great sculpture, can be made to delight the common as well as the elect. The books listed below are all simple works and yet they are great—all great things are simple. They are serious works, of course, but Mr. Haldeman-Julius does not think the public will refuse to put its mind on serious topics.

These 25 Books Open the Door to Culture

Schopenhauer's Essays. For those who regard philosophy as a thing of abstractions, vague and divorced from life, Schopenhauer will be a revelation.

The Trial and Death of Socrates. This is dramatic literature as well as sound philosophy.

Meditations of Marcus Aurelius. This old Roman emperor was a paragon of wisdom and virtue. He will help you.

The Discovery of the Future. H. G. Wells asks and answers the question: Is life just an unsolvable, haphazard struggle?

Foundations of Religion. Prof. Cook asks and answers the question: Where and how did religious ideas originate?

Studies in Pessimism. Schopenhauer presents a well-studied viewpoint of life. The substance of his philosophy.

The Idea of God in Nature. John Stuart Mill. How the idea of God may come naturally from observation of nature is explained in this volume.

Life and Character. Goethe. The fruits of his study and observation are explained in this volume.

Thoughts of Pascal. Pascal thought a great deal about God and the Universe, and the origin and purpose of life.

The Olympian Gods. Tichenor. A study of ancient mythology.

The Stoic Philosophy. Prof. Gilbert Murray. He tells what this belief consisted of, how it was discovered, and what we can today learn from it.

God: Known and Unknown. Samuel Butler. A really important work.

Nietzsche: Who He Was and What He Stood For. A carefully planned study.

Sun Worship and Later Beliefs. Tichenor. A most important study for those who wish to understand ancient religions.

Primitive Beliefs. Tichenor. You get a clear idea from this account of the beliefs of primitive man.

Three Lectures on Evolution. Ernst Haeckel's ideas expressed so you can understand them.

From Monkey to Man. A comprehensive review of the Darwinian theory.

Survival of the Fittest. Another phase of Darwinian theory.

Evolution vs. Religion. You should read this discussion.

Reflections on Modern Science. Prof. Huxley's reflections definitely add to your knowledge.

Biology and Spiritual Philosophy. An interesting and instructive work.

Bacon's Essays. These essays contain much sound wisdom that still holds.

Emerson's Essays. Emerson was a friend of Carlyle, and in some respects a greater philosopher.

Tolstoi's Essays. His ideas will direct you into profitable paths of thought.

Dialogues of Plato. This volume takes you into Plato's immortal circle.

25 Books—2,176 Pages—Only \$1.95 for All—Send No Money

If these 25 books were issued in the ordinary way they might cost you as much as a hundred dollars. We have decided to issue them so you can get all of them for the price of one ordinary book. That sounds inviting, doesn't it? And we mean it, too. Here are 25 books, containing 2,176 pages of text, all neatly printed on good book paper, 3½x5 inches in size, bound securely in card cover stock.

You can investigate the best and the soundest ideas of the world's greatest philosophers—and the price will be so low as to astonish you. No, the price will not be \$25 for the 25 volumes. Nor will the price be \$5. The price will be even less than half that sum. Yes, we mean it. Believe it or not, the price will be only \$1.95 for the entire library.

That's less than a dime a volume. In fact, that is less than eight cents per volume. Here is the very best at the very least. Never were such great works offered at so low a price. All you have to do is to sign your name and address on blank below. You don't have to send any money. Just mail us the blank and we will send you the 25 volumes described on this page—you will pay the postman \$1.95 plus postage. And the books are yours.

If you want to send cash with order remit \$2.25.

Is Mr. Haldeman-Julius making a mistake in advertising works of culture? Is he doing the impossible when he asks the people to read serious works? Is he wasting time and money?

- - - Send No Money Blank - - -

Haldeman-Julius Company,
Dept. S-17, Girard, Kans.

I want the New Library of 25 books listed on this page. I want you to send me these 25 books by parcel post. On delivery I will pay the postman \$1.95 plus postage, and the books are to be my property without further payments of any kind.

Name

Address

City State.....

Persons living in Canada or other foreign countries must send \$2.25 with order.

NOV -4 1922

Visual Education

A MAGAZINE DEVOTED
TO THE BUSINESS OF
AMERICAN EDUCATION

Harley L. Clarke, Acting President
Forest R. Moulton, Secretary

L. M. Belfield, Managing Editor
B. C. Brumm, Advertising Manager

William Chandler Bagley, Chief Editorial Writer



Subscription . . . \$1.00 a Year
Foreign Countries . . . \$1.50
Single Copies . . . 15 Cents
Back Numbers . . . 25 Cents

VOLUME 3

OCTOBER-NOVEMBER 1922

NUMBERS 8-9

VISUAL EDUCATION AND THE PROJECT PLAN..... <i>Jean Ramsey</i>	347
"WHY WE USE MOVIES"..... <i>A digest of the experiences of film-users in schools, churches, business offices, farm bureaus, Y. M. C. A.'s, social settlements, etc.</i>	351
A HIGH SCHOOL "BETTER FILMS" COMMITTEE.....	353
MOVIES: A LINK BETWEEN SCHOOL AND COMMUNITY..... <i>C. P. Underwood</i>	354
VISUALIZED STUDY..... <i>W. R. Hart</i>	355
TO TALK OR NOT TO TALK?..... <i>Helpful suggestions on how to conduct a film lesson</i>	358
THE MOTION PICTURE PROBLEM..... <i>Extracts from report of survey made for the Social Service Commission of the Federal Council, Churches of Christ in America</i>	360
STATE FIRE MARSHALS FIGHT INFLAMMABLE FILM.....	361
PROPOSALS FOR A LIMITATION OF EDUCATION—Editorial..... <i>William Chandler Bagley</i>	362
VISUAL ACTIVITIES THE WORLD OVER.....	363
PROJECTION QUERIES AND ANSWERS..... <i>F. R. Moulton</i>	365
STEREOSCOPIC MOTION PICTURES.....	365
VOCATIONAL DEPARTMENT.....	366
NEWS OF THE VISUAL EDUCATORS.....	367
FOR BOYS AND GIRLS..... <i>All About My First Fairy-Tale, by Baby Peggy</i> <i>A Visual Contest for Christmas Prizes</i> <i>Just for Fun</i>	368
FARMERS AND FILMS.....	371
THE FILMS IN REVIEW..... <i>Robin Hood—The Prisoner of Zenda—Blood and Sand—The Romance of Silk—Life of Columbus—Ballad of Fisher's Boarding House</i>	373
KEEPING ABREAST OF THE SCREEN..... <i>Brief comments on current films for the special information of parents and teachers</i>	377
THE FILM FIELD..... <i>Classified selections of films suggested for school and general non-theatrical use, with addresses of distributors</i>	382

Copyright 1922, by the SOCIETY FOR VISUAL EDUCATION, Inc., Chicago

FORECAST FOR DECEMBER

Pictures in Schoolbooks

The growth of the visual idea in teaching, as mirrored in the evolution of the illustrated textbook. Some of the quaint pictures to be found in early American schoolbooks are reproduced.

Visualizing Health Ideas in China

The illustrated story of an anti-cholera campaign in Foochow which successfully applied the ingenious visual methods developed by Dr. W. W. Peter and his associates of the Council on Health Education in China.

The Pageant of Virginia

How the Old Dominion visualized its history in a week-long play of many episodes and characters—a large-scale experiment in visual education for the entire community.

Government Exhibit on Marketing Farm Products

Pictures of the little models developed by the U. S. Department of Agriculture to show the grading of grain, cotton, wool, livestock, meat, etc., by Federal standards, and right and wrong containers used in shipping farm products.

Visual Education as Applied to the Back Yard

How the botany students of a great township high school vitalized their work in garden-planning by translating paper plans into terms of plasticene, raffia, wire gauze, moss and bird-gravel, and what values such visualization brought with it.

What Is a Glacier?

Mrs. Mary Vaux Walcott, of Smithsonian Institution, contributes a delightful study of the genesis and life-labor of "ice-rivers," and illustrates it with magnificent photographs of her own taking.

Published monthly by the Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 West 42nd Street, New York

Do You, Too, Want Extra Spending Money?

VISUAL EDUCATION will be glad to show you how you can add to your income through work that is not only pleasant, but highly profitable as well.

If you have a few hours a day to devote to it, you will be surprised at the amount of money you can make by co-operating with us to build up our family of readers.

VISUAL EDUCATION is such an acknowledged leader in this great educational movement, its articles are of such timely and varied interest, that it is no exaggeration to say that the magazine "sells itself."

All it needs is an introduction.

Hundreds of people in all parts of the country are availing themselves of the opportunity to make extra spending money by acting as our Special Representatives.

Clip the coupon NOW and learn full particulars of this offer.

VISUAL EDUCATION

806 W. Washington Blvd.
CHICAGO, ILLINOIS

VE 10-22

I am interested in your proposition to make additional spending money. Please send full particulars by return mail.

Name

Street

City State

Position

The Value of Intellect

an article in the September **BUSINESS PHILOSOPHER** by Horatio W. Dresser, eminent psychologist and metaphysician, will be read by educators everywhere. It deals with the emphasis which has been put on the development of the intellectual faculties, and with the need for direction of instincts and the cultivation of the will and the feelings or sensibilities.

In the October and November issues, A. F. Sheldon, school teacher, philosopher and author, will outline his method of teaching the Philosophy of Service—the Rotarian creed—to school children.

EVERY SCHOOL TEACHER IN AMERICA SHOULD READ IT

There is now appearing a series of articles on **VOCATIONAL GUIDANCE** by H. D. Appleby, character analyst and vocational expert. This is a live topic in educational circles.

You will also be interested in the discussions by well-known leaders on current problems, such as

"The Enforcement of Criminal Law"
"The Allied Debt"
"The Modern Dance"
"Internationalism"

You will find the Department of Applied Psychology non-technical, offering suggestions which you may find valuable in maintaining your health and happiness and attaining success.

The **PHILOSOPHER** will make a valuable and interesting friend for those long winter evenings that are ahead of you. You will always cherish his friendship.

SPECIAL OFFER TO EDUCATORS ONLY

You may have the nine issues beginning with September for \$1.00 (regular price 25c a copy). A dollar bill, stamps or money order will do.

Address

The Business Philosopher

140 Monroe Ave.
Memphis, Tenn.



IN SHAKESPEARE'S DAY AND AGE

Ninety-five out of every hundred adult Americans have no true conception of the genesis of the United States, no real knowledge of why English people crossed the Atlantic to found a "New England" in the wilderness. The sixth-grade children whose work is here shown DO know. They have very vivid impressions and accurate knowledge of those conditions in the Elizabethan Period which caused people to go adventuring and to seek new homes. They know that the defeat of Philip's Armada was a turning-point in world history, that the "sea-kings" were fathers of our own country. Note the cleverly made models of Drake's ships, of a typical manor-house, and of the court costumes of that picturesque day.

Visual Education and the Project Plan

"From Interests to Interest" is the meaningful slogan of the schools of Cicero, Illinois, where the project method prevails in the fourth and fifth grades. English, spelling, geography, arithmetic, drawing and nature-study—all revolve around and are tied up to the class project for the month.

JEAN RAMSEY
Chicago, Illinois

"**E**VERY man is as lazy as he dares to be."

Thus, quoting Emerson, does Supervisor F. W. Rawcliffe, of the public school system of Cicero, Illinois, introduce his favorite thesis—that people have to be *trained* to like work, that such training is one of the prime missions of the school, and that we enjoy work just in proportion as it takes on the guise of play.

"Some years ago," confessed Mr. Rawcliffe, who is in special charge of project work in the grades, "I prepared a paper on the general subject of 'Play in Education.' I made this my theme—that there is

no type of school work which cannot be made to lose its hard-and-fast work characteristics, and that once you have children honestly *liking* what they have to do in school, they no longer regard it as work. When, after school is over, I go home and spend laborious hours in my backyard garden, it is not work but play, for the simple reason that I enjoy doing it. When my little daughter comes out to help, it is even finer play for the two of us—we are doing it together.

The Threefold Appeal

"In making its appeal to the child's interest, the school has

three avenues of approach: First, his curiosity—where? why? how? Second, his vital interest in the lives of others. Third, his craving to express himself and his own ideas of things by means of dramatization, drawing or handwork."

It was with this idea of making more direct use of child activity, of appealing to the instincts that ordinarily lie dormant in boys and girls beyond the kindergarten age, that Superintendent of Schools W. W. Lewton took the radical step, two years ago, of introducing a really extended and consistent program of project teaching into the Cicero schools. The first year in

which the plan was put into operation, only the fifth grade was affected; during the year just closed, the work of the fourth grade as well has revolved around a definite class project—a different project each month.

A Year's Project Program

Food, clothing and shelter being the chief physical needs of man, it was decided that the scheme of activity could do no better than draw upon these three general subjects for its material. An outline indicating the course of the year's work appears herewith:

Fourth Grade: FOOD

September.....The Story of Bread: Grains.
October.....The Story of Bread (continued).
November.....Milk and the Dairy Industry.
December.....Sugar and Sirup.
January.....Meats: Beef, Mutton, Pork.
February.....Fish and Fisheries.
March.....Vegetables and Farm Life.
April.....Fruits and Nuts.
May.....Beverages: Cocoa, Tea, Coffee.
June.....Spices and Extracts.

were, getting a broad general view of the subject. Then they begin to get down to details, to concentrate on certain definite features, to analyze their material, and to classify their ideas. They decide to what phase of the subject they will devote their "table," what shall be featured in their dramatization of the topic. The teacher stands by to direct and supervise, but as far as possible the class conducts its own recitations and plans its own exhibit. "It is our aim always," says Mr. Rawcliffe, "to have the teacher looked upon as one of the

Fifth Grade: CLOTHING and SHELTER

September.....Evolution of Clothing: Cotton.
October.....Wool and Weaving.
November.....Flax and Linen.
December.....Silk: Life in China and Japan.
January.....Leather: Boots and Shoes.
February.....Furs: Life of the Trappers.
March.....Rubber: Processes and Uses.
April.....Evolution of Housing: Lumbering.
May.....Building Stone and Concrete.
June.....Clay Products: Brick, Terra Cotta.

Getting Started on the Project

From the very start, all the work of the morning session—spelling, arithmetic, English, geography, nature-study and the rest—is suggested by and linked with the project. There is a great deal of research work, with the boys and girls feeling their way along, as it

group, rather than as one *over* the group."

A Typical Spelling Lesson

A combined spelling and English lesson, developed from the "Shelter" project here illustrated, was in progress when the writer visited a fifth-grade room. Upon the board was this list of words:

primitive	construct
shelter	modern
granite	cottage
cement	bungalow
concrete	furnace

One by one the boys and girls advanced to the front of the room and read aloud the sentences into which they had woven their project words. As each paper was read, other pupils pointed out errors in grammar, omissions and misstatements, leading to informal discussions which constituted ideal and highly effective reviews. One paper is quoted as typical:

The Eskimo's homes are primitive shelters. In modern times large buildings have been constructed with large furnace rooms or boiler rooms. Houses are made of cement and concrete, but granite is hardly ever used in building homes because it is a very costly stone. Nowadays we have cottages and bungalows instead of huts, but we still find huts on the globe.

Logical Place for Project Work

Why were the fourth and fifth grades selected as the field for this far-reaching experiment in educational practice? Because, in the opinion of the Cicero educators, they are the logical years for such a plan of teaching. In the first place, the work of the sixth, seventh and eighth grades is too highly departmentalized to permit of the close correlation of subjects which is essential, and in the first three grades children are still too young and untrained for the necessary research and co-ordination of effort. Again, these two years constitute what is pre-eminently the habit-forming period, and thus present a wide scope of action to any teaching plan that aims to build good mental, moral and physical habits by utilizing the child's natural cravings.

Special Upper-Grade Projects

Now and then one of the higher grades embarks upon a project, as when a sixth-grade class developed, in connection with their study of English history, the interesting table pictured herewith in which clever little models visualize the costumes, buildings and ships of the Elizabethan period. A seventh-



A PROJECT IN THE EVOLUTION OF HOUSING

One fifth-grade group chose to represent the concrete stage. The garage and the house at the right are made of tiny blocks, for which the boys made their own molds. They mixed cement, sand and little stones, dried the blocks in the sun, and when they had hardened put them together with real mortar. Neighborhood building operations made it easy to secure the needed materials and to study the work of real builders. The walks were made just as the boys had seen sidewalks made in their own home districts. The house in the middle is of the "poured" sort. Many trials and much experimenting were necessary before the little workers were satisfied. Note the telephone lines, the lamp post—fashioned of adhesive tape stiffened with shellac and painted a dark gray, with a lantern of black and yellow tissue paper—the flower beds, the garden bench, all true to life. This project was made almost entirely in school hours.

grade class carried through a two-month arithmetic project based upon the furnishing of a bungalow or apartment."

Eighth-grade classes worked out an elaborate "Iron and Steel" project which involved, as one feature, the preparation of attractive booklets telling the story of the mining and transportation of iron ore, the smelting process, the various kinds of iron, and the different processes of manufacturing steel. In drawing, map and graph they visualized "the big stoves that cook the iron out of the ore"; the comparative output of the United States and the leading iron-producing countries of Europe; the principal coal and iron regions of the globe; transportation routes from the iron mines of Michigan, Wisconsin and Minnesota to the steel cities on the Great Lakes; successive stages in the making of a steel pen, and the relative production of the states which lead this country in iron, pig iron and steel manufactures.

Teachers Plan the Projects

One characteristic feature of the project method as applied in Cicero is that the working-out and outlining of the projects is entirely in the hands of the fourth- and fifth-grade teachers. The work is not arbitrarily laid out for them by a group of "higher-ups" sitting in formal and detached conference, but is developed from month to month at their own meetings.

Their Suggestion Committee receives, discusses and reports suggestions for each new project. There is a Number Committee which looks up facts and gathers statistics concerning the current subject, as a basis for correlating the project with the work in arithmetic; an English Committee which plans ways of making the project function effectively as oral and written English; a Life Experience Committee which offers suggestions for the study of the people associated with the various industries studied, and so on.



FROM LOGGING CAMP TO SAWMILL

A fifth-grade project, representing a lumber camp and sawmill. The several parts were made at home and assembled during school hours. Every one of the forty-eight children in the group had a hand in the work. No photograph could do justice to the many fine details thought out and worked out by these enterprising youngsters—details such as the log jam in the river, sawyer with ax, stumps and felled trees, endless chain drawing logs up into the mill, circular saw and table under a shed, donkey engines, skidway, team of horses hauling logs, etc. Free-hand cuttings were used in making the posters. Observation of this group would be a revelation to educators devoted to traditional methods of "school-keeping": teacher in the background and children "carrying through" on their own initiative—eager, alert, full of pride in achievement—"our room, our booklets, our posters, our table!"

"We have, of course," explained Mr. Rawcliffe, "a very flexible program for our morning period, which in these two grades is devoted to the project work proper. In the afternoon the program is more formal. It is then we give the indispensable drill work, based on the material of the morning's lessons, the regular instruction in drawing, painting, technical music, phonics, the mechanics of reading, and the like."

Developing a "Rubber Project"

By way of supplying a concrete idea of the working-out of a class project, let us quote several items from the teachers' outline prepared

for the "Rubber" project, which was the March assignment to fifth-grade classes.

PROBLEM: How do you explain the fact that only within the past 50 years has rubber become an important article to man, although it was known soon after the time of Columbus?

What is meant by the statement that there is a rubber belt around the world?

Which would sell for the lower price, the wild or the cultivated rubber? Why?

The rubber milk is in cells just under the bark. What do you think is the best way to get it out without injuring the tree?

Why does the United States import more crude rubber than any other country?

SUGGESTIONS FOR POSTERS. (1) Chart or poster illustrating, by articles or small pictures, as many articles made of rubber as possible. (2) Scene in the Amazon Valley, Philippines, or Congo Valley. (3) Scene entitled "Uses of Rubber"—a great fire.



A COFFEE PLANTATION IN BRAZIL

Would you not think, as did the fourth-grade children who developed this project, that this way of "studying" the coffee industry was as far removed from tedious mulling over lessons out of a textbook as the north pole is from the equator? Certain it is that the boys and girls who worked out this and other projects know all that's worth knowing about the staple food products. And what fun they have had in the process of learning—what life-lessons they have learned indirectly—what good habits they have been forming!

SUGGESTIONS FOR TABLES. (1) Rubber plantation, or collecting rubber in the jungle. (2) Show window of a rubber goods store. (3) Section of a rubber factory. (4) Relief map showing the Amazon Valley, part of the Atlantic and Caribbean and eastern United States (collecting, transporting and manufacturing).

DRAMATIZATION. (1) *"The Story of Rubber."* Scene I. Child playing in the snow with pair of new rubbers. Discovers that his feet remain dry. Wonders as to the origin of rubber. Decides to ask his father. Scene II. Child and father seated before an open fire. Father, pleased at question, tells the whole story of rubber. The following sub-scenes are played by other children in pantomime as the father tells his story:

(a) Columbus finding Indians playing ball on the beach.

(b) Rubber plantation—rubber gathering.

(c) Rubber plantation—smoking the rubber (sticks placed over red paper serve for fire).

(d) Shipping of rubber "biscuits" or "hams"—pack animals from the plantation—ships at Para.

(2) *"A Trip from Chicago to an Amazon Forest."* Take steamer at Chicago. Note in passing the bridging of the Straits of Mackinac, the improvements of the St. Lawrence as a gateway for central United States, and New York's opposition to that improvement. Labrador Current;

the "Banks"; icebergs. Pass Plymouth Rock. Pass New York—the world's greatest city; why? Statue of Liberty. Washington and its buildings; Mt. Vernon; navy yards, forts, etc. The Gulf Stream, Bermudas; Bahamas (landing-place of Columbus). Havana — sinking of the "Maine"; getting rid of yellow fever. The Virgin Islands, Islands of Trinidad, the great lake of asphalt. Note (with the binoculars) the great width of the mouth of the Amazon; the swift current carrying fresh water far out to sea; the struggle of the incoming tides with the current. Ask many questions about this wonderful river. Spend some time at a rubber camp or plantation. Bring home specimens of rubber in all stages of preparation. On arrival at home construct a rubber plantation or camp, with tapped trees, fires for smoking, storehouses, etc. Show several kinds of rubber for various uses.

(3) Dramatize *"The Story of Good-year,"* visualizing his struggles, disappointments, and ultimate success.

NUMBER FACTS.

Imports of crude rubber:

1913.....	113,384,359 lbs.
1914.....	131,995,742 lbs.
1915.....	172,068,428 lbs.
1916.....	267,775,557 lbs.
1917.....	333,373,711 lbs.
1918.....	389,599,015 lbs.
1919.....	535,940,421 lbs.

1. A rubber ham weighs 3 or 4 lbs. Find the number of hams needed to make one ton of crude rubber.

2. Find the number of pounds in 20,000 tons of rubber exported from Para every year. Find the number of hams.

3. How many rubber coats are made in one hour if 1,500 are made in one day?

4. If the rubber region of the Amazon is equal to one-third of the area of the United States (3,026,789 sq. mi.), what is its area?

Impression Through Expression

According to the supervisor, "the secret of the success of the entire plan lies in the principle that Dr. Arnold Tompkins used to hammer home so insistently: 'Impression through expression.'

"As a result, the child emerges from the experience with a clear-cut impression of the new idea that has been added to his educational equipment. 'I never knew fourth- and fifth-grade pupils to write such good essays,' teachers are given to exclaiming, 'stories that, while full of the natural mistakes of the young student, are at the same time so full of life and packed with interest.'

"Better arithmetic work is being done, too. Some time ago, after close observation and careful tests, we decided that the teaching of fractions in the fifth grade was out of place—that the results secured were in no way commensurate with the time and effort expended. So, having transferred the teaching of common fractions to the sixth grade, we limit our fifth-grade arithmetic to the four processes with whole numbers and introduce a vast amount of practical problem work based on our projects. The Number Committee secures statistical material and offers suggestions for its best use. For instance, out of government reports they dig figures on the importation of coffee, the exportation of cotton and wheat, the production of lumber during a given year, the manufacture of woolen and cotton cloth, and the like.

"One would think that such figures, running up into the millions, would be too difficult for fifth-graders to handle; but such is not

(Continued on page 379)

PROJECT CORRELATION GRADES IV & V



A visualization, in chart form, of what "project correlation" is attempting to accomplish.

"Why We Use Movies"

Advertising and Sales Promotion

Since we are in receipt of our film and projector we can safely and conservatively attribute at least twelve sales to these pictures. We consider this projection a wonderful sales-talk, and cannot see how any dealer or distributor can overlook the importance of having such an outfit in his salesroom.

—*McFarlane & Weinstein*
Auto Dealers
Philadelphia, Pennsylvania

Every sales argument for our product has been forcefully picturized in the film, and at the same time much human interest and subtle humor make the picture highly entertaining and pleasing. We are firmly convinced that in the use of these pictures we are employing the most effectual and economical sales medium available.

—*Frederick Person, President*
The Instant Heat Company
of America

The use of films as a part of a selling campaign was an experiment with us, but the results from our first picture have been such that a second movie is being made and films have won an important position in our advertising program. One of the big things about the film in our business is that it reaches husband and wife at the same time.

—*H. Earl Hoover*
Director of Advertising
Hoover Suction
Sweeper Co.

Agricultural Extension—

Farm Bureaus and County Agents

Moving pictures have proved for us the most effective means of reaching the whole farm family; thus giving an opportunity to drive home important facts to both old and young in a way that makes those facts "stick." All work and no play makes Jack a dull boy, but in the films there is just enough of fun and entertainment, along with real instruction, to accomplish results which would otherwise be slower in coming and more difficult to obtain.

—*W. E. Hart, Farm Adviser*
Clay County, Illinois

All records for attendance are being shattered at the present series of motion-picture meetings featuring the "Spring Valley" film. At Townsend the town-hall was literally packed to the doors with the largest crowd ever

known to have attended a motion-picture show in that town. One week later, despite the deep snow and bad roads, Asby filled the First Parish Church to overflowing, after having transferred the meeting from the town-hall owing to inadequate accommodations there. These pictures are not only furnishing instruction and enjoyment, but the meetings give the director an opportunity to tell large groups about the Farm Bureau and its various lines of work.

—*Middlesex Co. Farm Bureau*
Waltham, Massachusetts

Two weeks after "The Homestead" was shown at a series of meetings in the county, I was called by a 190-acre farmer to assist him map his farm into a handy arrangement of fields and to plan a crop rotation. It developed that he had got his inspiration from the motion picture. Another man wanted to get the University to keep cost account records on his farm. I am surprised to find the teaching value that motion pictures have.

—*C. C. Logan, Farm Adviser*
Crawford County, Illinois

Americanization Work

The Americanization Department of the Y. M. C. A. conducts each year a large number of popular lectures illustrated by motion pictures and slides. At these lectures it is necessary to command the attention of audiences ranging from 300 to 3,000 or more, and really to deliver the message selected for the occasion. With motion pictures the largest audience possible is held successfully on each occasion, and the message is given effectively.

—*Abraham Bowers, Exec. Secy.*
Americanization Department
Chicago Y. M. C. A.

We use the screen to attract people and get our message across in the easiest way to the largest number. Recently we showed two Americanization films—"Hats Off!" and "A Citizen and His Government"—twenty-one times to 3,100 people and nineteen times to 3,300 people, respectively, the audiences assembling at various places such as the Rotary Club, lodges, public schools, churches and community meetings. Many made a special point of coming up to say that they felt we could do no better work than this kind

of Americanization teaching, since the screen reaches everybody.

—*S. A. Cohagan, Gen. Secy.*
Y. M. C. A., Waterloo, Ia.

Athletics

The swimming reels we had the pleasure of presenting to our boys were splendid pictures, and we found the retarded motion studies proved more valuable for study than the swimmers themselves would have been. The film created more interest among the boys in Camp Keetoosa in perfecting their strokes and diving than any instruction that could have been given them by our swimming instructor.

—*D. H. Markham*
College of Education
University of Arkansas

Churches and Sunday-schools

Sometimes good music and good preaching fail to bring the people into the church, and at such a time it is necessary to use some other means. My successor at the Central Congregational Church in Topeka, Dr. John Rayhill, shows a motion picture each Sunday night and delivers a sermon on some phase of the story. "The Miracle Man," "Humoresque" and "Over the Hill" are among the films Dr. Rayhill has screened in his church, and he has increased the attendance from 300 to 1,000—all the church will hold.

—*Dr. Charles M. Sheldon*
Editor-in-Chief
The Christian Herald

Young people who otherwise would not attend the regular evening service now flock to our church Sunday nights, where they have supper and clean motion pictures. . . . It is not true that clean pictures will not pay. The theater which we run in connection with our church clears over \$175 a month, and the income is increasing every day.

—*Rev. J. G. Gilkey*
South Congregational
Church, Springfield, Mass.

Religious prejudice against movies is rapidly diminishing because church authorities are coming more and more to realize the infinite power of the flickering films because of the great masses of people they reach, if for no other reason. . . . Christ would not be slow to grasp the illimitable possibilities of the movies, and in addition to giving His sanction to their

use, He probably would write scenarios, direct His own pictures, and even go so far as to act for the camera. He would employ all the modern agencies existing today to scatter His message over the world. . . . He used modern methods when He taught. He was a keen student of psychology and He knew His crowds. I believe that He would not only recognize the movies by attending them, but that He would use them for all they are worth to project His message of love and life to the hungry millions who gaze longingly at the silver sheet. He would realize the possibilities of the screen in reaching multiplied audiences.

—Rev. Earl A. Blackman
National Chaplain of
the American Legion

Money-Raising Campaigns

The story of how the Chicago Y. W. C. A. film, "Back of the Girl," came to be made is interesting. When we talked over with our advisory committee of business men the question of raising money through our forthcoming Budget Campaign, the first thing the men wanted to know was, "Have you a movie? We want to get this thing before the business men of Chicago. Since they can't go running around to visit all the Y. W. C. A. centers in Chicago, the thing to do is to bring Y. W. C. A. centers to them. You can talk to them and you can shower them with pamphlets, and nothing will happen; but when you actually *show* them these girls in their Y. W. C. A. health classes and homes and camps, and the good that's being done, you'll convince them." And so the film was made.

—Ava Blank
Special Finance Worker
Natl. Board, Y. W. C. A.

Propaganda

Two thousand citizens of Oakland who witnessed the first showing of the film picturing the beauty spots of the proposed Sequoia Mountain Park pledged their aid to save the redwoods and enrolled as volunteer workers for the \$538,000 park bond issue to be voted on at the special election.

—Ernest Engler, Chairman
S. O. S. Campaign Committee
Oakland, California

Old-time methods, it has been decided, are inadequate to meet the tremendous opposition to prohibition in the campaign to overthrow the Volstead Act and reinstate "King Alcohol" in power. Therefore the motion picture has

been chosen as the most powerful and convincing medium that could be employed to get the appeal of the temperance forces before the thinking public. That is the reason "The Octopus" was made. As one local critic says, "Put this story on the screen and you will put dynamite under the bootleggers and violators of the law."

—Rev. Charles Hall
Los Angeles, California

Public Improvements

A plan was being considered to straighten the channel of the Missouri River and keep the current under control. The engineering feat proposed was effectively pictured on the screen for the benefit of the Board of County Commissioners. No explanations or arguments could ever have competed with the motion picture in showing not only the construction processes, but actual effects of the finished work in other localities.

—Woods Brothers Construction Company
Lincoln, Nebraska

The circulation of a motion-picture film depicting the need of an adequate sewage disposal system for Los Angeles will be extended to meeting halls in all outer sections of the city. Aside from the exhibition of this film in numerous theaters, much good has been accomplished by showing it at meetings of improvement clubs, civic bodies and other organizations.

—Charles H. Treat, President
Board of Public Works
Los Angeles, Calif.

Safety First

If our city has been free from street traffic fatalities, it is due to the fact that the film, "Careless America," has been seen by hundreds of our citizens and school children.

—Redmond Welch
Supt. of Police
Lowell, Massachusetts

Schools and Universities

There are many topics of instruction that can be more effectively presented by moving pictures than in any other way. The developments that go on in nature may be presented in actual sequence and understood more readily than is possible through the printed page or the microscope. The moving picture has the advantage of presenting material so that it can be understood by young and old, by the illiterate as well as the educated.

—Walter Dill Scott, Pres.
Northwestern University
Evanston, Illinois

How sorely visual aids are needed, only teachers are aware. Not so long ago I found a geography class in one of our city schools where barely half the members had ever seen a railroad train. Three of these piped shrilly, however, that they had seen one in the movies, and I said, "God bless the movies!"

In other directions the necessity is even more imperative if we wish really to get our message across. Endeavor to teach a group of children the facts about bacilli in milk or water. How will you succeed by description, or even by means of pictures? Their minds remain unresponsive, uncomprehending, almost unbelieving. True, you can place a powerful microscope in the hands of each child and teach him to use it, but the impracticability of this is obvious at once. One reel of film may replace ten thousand microscopes, with an even more effective reaction. *It is the socialization of the microscope.*

—Dr. Ernest L. Crandall
Director of Visual Instruction
New York City Public Schools

For the overburdened and overworked grade teacher, the use of visual helps offers relief from the strain of the crowded curriculum. Lacking time or facilities for bringing to her pupils the first-hand informational material needed to furnish their minds with clear-cut conceptions, she can solve many a problem by pressing the projector into service. To the city teacher, especially, nature study films provide invaluable material for the adequate presentation of nature lessons.

—Dudley Grant Hays
Director of Visual Instruction
Chicago Public Schools

Visual education not only helps the child to pick up the text of the subject more quickly, but also helps him to retain the instruction better, as we all secure more knowledge through our eyes than any of our other senses. Two of our ward schools are now equipped with first-class projection machines and fireproof booths, while the other schools are reached with portable projectors. As there is no budget to pay for films to carry on this work, however, we have to charge one-cent and two-cent admission fees in order to pay for our films. We feel that *at any cost* we must have films to supplement classroom instruction—films with a direct connection with the lesson.

—Benjamin W. Truesdell
Public Schools
Wichita, Kansas

Vocational Training

Both the states and the nation should multiply the number of vocational reels and give them free circulation as a means of multiplying the productive powers of the people. It would be the most valuable investment ever made by a government. Moving pictures speak a universal language, and the impressions through the eye have been proven to be over four times as powerful and enduring as the impression through the ear by the spoken word.

—Senator Robert L. Owen
of Oklahoma, speaking
before the U. S. Senate

We have used vocational reels teaching the operation of the engine lathe, and I cannot exaggerate my enthusiasm over the motion-picture plan of giving vocational instruction. Such pictures explain in an hour what it takes us instructors years to put over.

—G. F. Weber
Director of Vocational
Instruction, South Bend
(Ind.) Vocational School

Men in vocational education are greatly interested in the possibilities of using vocational films to supplement their instruction. A properly made film, due to the care in photography and the intense illumination, brings out many phases and points far more clearly than the instructor could bring them out to a group if he were demonstrating the actual machine. In order to handle this teaching effectively, it is highly desirable for the instructor to stop the film at different points in order to carry on the instruction properly.

—H. W. Kavel, Former Asst.
Director, Wm. Hood Dunwoody
Industrial Inst., Minneapolis

Welfare Work

We have produced a two-reel film picturing the ideals and activities of the Chicago Hebrew Institute, in the way that only a motion picture can do. The purposes of the picture are to inform those who are already interested in the Institute regarding its func-

tions, to interest others with a full account of Institute activities, and to bring the Institute's work into other communities as an example of what can and should be done in a community recreation program.

—Philip L. Seman, Supt.
Chicago Hebrew Institute

The screen is the only place where multitudes of young people can satisfy their craving for a nobler conception of life than that which their own poor surroundings afford. Thousands of boys and girls in every large city find the "show" the only road which leads them out of the drab commonplace into the realms of romance and mystery. . . . In the last analysis, it is but a blind and primitive reaching-out in the direction of culture, an attempt to slake the thirst for art, romance and adventure which is inherent in youth.

—Jane Addams
Founder of Hull House
Chicago

A High School "Better Films" Committee

NOVEL, practical and prophetic of much good is the program of Atlanta's new Supervisor of Visual Instruction—Mr. Joe W. Coffman—who is organizing a High School Better Films Committee to review and report upon current releases in the city's theaters.

Each week a reviewing committee from each of the English classes will visit the downtown theaters and on the following morning submit a report. Senior, junior, sophomore and freshman classes will be called upon to do this reviewing in turn. All reports, before being posted on the bulletin board, must be approved by one of the English teachers, thus making the review serve the double purpose of English composition and visual education. The entire student body—numbering something like five thousand—will be urged to confine their movie attendance to pictures recommended by the reviewers.

Once each month the English classes will devote a special period to motion-picture study, discussing the month's films from an artistic and dramatic standpoint, and hearing the reports of the reviewing committees. In furnishing a criticism on films viewed, the following score card is to be used:

1. **THEME.** Does the theme in itself possess general appeal to serve as the foundation for the picture? Does it involve socially approved interests? Perfect—20.
2. **CREATION OF PROBLEM.** The main problem should be vital, gripping, interesting. The subordinate problem should complicate, be relevant to and build up the main problem. The solution should, while bringing in the elements of suspense and climax, give satisfaction in the solution of the subordinate problems, and should solve completely the main problem. Perfect—20.
3. **DIRECTION AND CONTINUITY.** Does the motion progress smoothly? Is the emphasis properly placed? Does the director make the most of the material in his hands? Are the titles and subtitles brief, clever, correct? Is a proper word and picture balance maintained? Perfect—20.
4. **CAST.** Is the cast well chosen? Do the players possess the appearance and the dramatic range and ability to satisfactorily interpret the characters they are supposed to represent? Perfect—20.

5. **MECHANICS.** Is the photography good? Is the lighting such as to keep the attention centered upon the action? Are the settings such as to lend the proper atmosphere to the story? Where novel, artistic, magnificent or beautiful settings are used, do they serve their purpose without distracting from the story? Perfect—20.

"While to some people," says Mr. Coffman, "the program outlined may seem to give undue attention to the moving picture, it is admitted by practically everybody, both in and out of the motion-picture industry, that moving pictures have as great an influence in the lives of the boys and girls of today as the books and magazines they read. Yet we spend far more time on literature subjects. I believe that by following such a program as will be inaugurated this year a high standard will be maintained and that only the best films will be patronized. . . . The boys and girls of today will be the adults of tomorrow, and it is upon them that the future tendencies of the motion picture will largely depend."

Movies—a Link Between School and Community

C. P. UNDERWOOD

Principal Samuel Ullman School, Birmingham, Alabama

OURS is an elementary school, and in my opinion there is no institution in the community that touches more people than the elementary school. Because of this close relation it has the greatest opportunity of all for service—service not only to the boys and girls who attend its classes, but to the community as a whole.

In order to make the most of this big opportunity, however, teachers and executives of the elementary school must work to bring school and community together in every possible way. In doing this we have found one of our best helps in moving pictures. A "picture show" can always be depended upon to

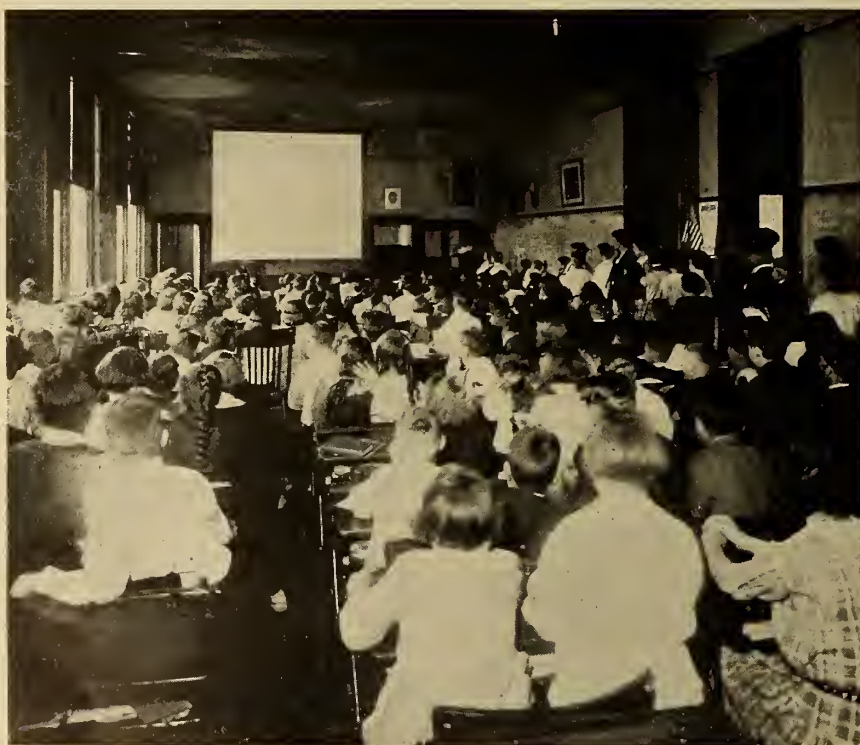
draw a good attendance. Between the reels it is easy to get our announcements across effectively by means of a stereopticon and to show slides that bring before the audience timely propaganda on matters affecting community life and welfare.

One of our chief problems has been to secure suitable pictures. Wholesome feature films such as "Rebecca of Sunnybrook Farm," "Tom Sawyer," "Huckleberry Finn," "The Ghost in the Garret," and other clean movies have figured successfully on our community programs. These movie entertainments are held either Friday or Saturday afternoon and evening, and an admission fee of ten cents is charged.

This system has enabled us in five months to make enough money to pay for our machine and to cover the expenses connected with our free showing of strictly educational films, which are given during school hours to all the pupils. Our plan has been to confine these classroom programs to pictures exclusively educational in plan and content, and to avoid the use of cheap films made purely for advertising purposes. Yet some of these commercial pictures are well worth using for the sake of the information they contain, and we have had a number of good ones on our programs from time to time.

Our teachers have been highly enthusiastic over the opportunity to use educational films as a means of supplementing and vivifying the textbook. I have heard them say that with a motion picture like "Hats Off!" for example, they can teach more practical civics in twenty minutes than they could teach in a whole semester with the usual methods.

All of Birmingham's larger schools are equipped with motion-picture machines, and in all of them practically the same plan of operation is followed as that described.



Two adjoining classrooms with folding partition serve as auditorium when "school movies" are the order of the day. No one complains of toothache or sore throat on movie day; it might lead to being kept at home! Even the youngest pupil seems to appreciate his blessings in having motion pictures made a part of his classroom work.

HE who helps a child helps humanity with a distinctness, with an immediateness, which no other help given to human creatures in any other stage of their human life can possibly give again.

—Phillips Brooks

Visualized Study

W. R. HART

Professor of Agricultural Education, Massachusetts Agricultural College

(Copyright October 1922, by W. R. Hart)

DISCUSSIONS of visual education are multiplying rapidly. Most of this literature, however, approaches the problem from the viewpoint of *teaching*, whereas the following discussion is an attempt to set forth the idea underlying visual education from the *study* standpoint.

Teaching is an effort to impart knowledge; studying is an effort to acquire both knowledge and power. During the teaching process the learner is in a degree passive; during the study process the learner is of necessity active. The activities, both mental and muscular, that can be brought into play during the study process, measure in some degree the amount and value of the student's achievement.

Let us pass from these general statements to a consideration of the method of procedure in conducting a specific college course. The course in question is planned both as to content and method for students in preparation for teaching in the Extension Service of an agricultural college. The following features characterize the conduct of these courses:

1. They are primarily courses in methods of study and presentation of results by students, rather than courses of instruction in subject-matter.
2. The exercises are self-assigned and consist of problems rather than lesson topics of the usual sort.
3. The study of the problem extends through a period of four weeks or more, occasionally through a term.

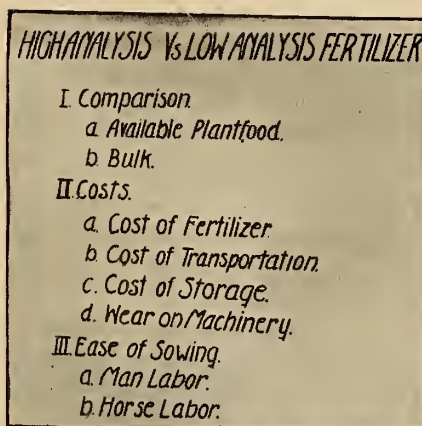


CHART 1

Outline of thesis on fertilizer analysis, clearly visualizing for the auditor the ground the speaker intends to cover.

4. The results of the study are embodied in a thesis embracing all aspects of the problem.
5. The presentation of the results is made by the student orally in the fashion of one lecturing without notes other than the charts, which are displayed in view of the class as his audience.

The mode of procedure, from the time the student chooses his problem to the presentation of the results, has three distinct aspects: search for sources of information; accumulation of notes on the various divisions of the problem; organization of the matter of the notes into a systematic and logically arranged outline as a basis for a thesis.

How the Material is Organized

The organization of the ideas embodied in the notes proceeds according to the following plan:

First, all the ideas, whether principal or subordinate, embodied in the notes are indexed by means of some catch-word or phrase. This index may be placed in the margin of the notebook if the notebook is properly made. *Second*, the indexed words and phrases are carried to new sheets along with the notebook pages from which they are drawn. *Third*, these lists of words and phrases are scrutinized with a view to finding their relationships to the problem as well as their relationships to one another, after which they are arranged on new sheets into preliminary or tentative groups under general divi-

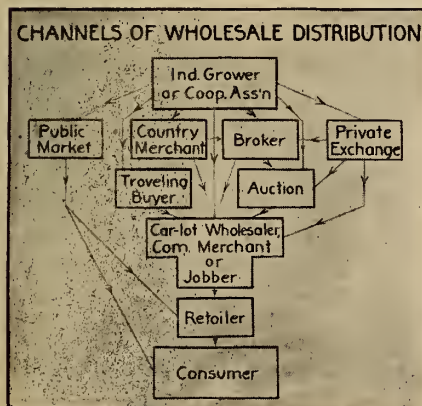


CHART 2

Illustrating the wholesale distribution of farm products.

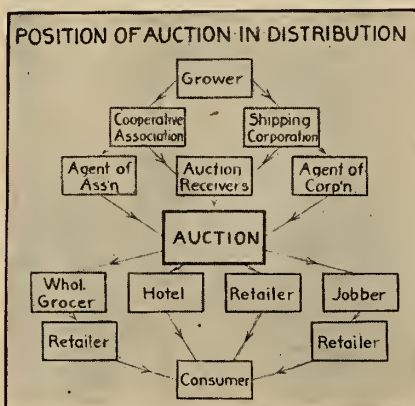


CHART 3

The auction's place in the distribution of farm products.

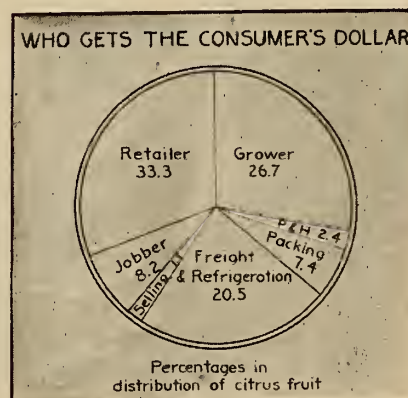


CHART 4

Distribution of the consumer's dollar in the process of marketing farm crops.

sions of the problem. *Fourth*, each of these last groups of related ideas is scanned with a view to arranging the words and phrases in logical order in some schematic form of outline. *Fifth*, the several groups are next arranged in logical order and made into a unified or completed outline.

The five steps taken in this process of organization consist objectively of the bodily activities of transcribing words and phrases. But every word or phrase transcribed must be preceded by a thinking process that terminates in a judgment as to what relation the words and phrases bear to one another, and also what relation certain groups of words and phrases bear to the theme in hand. The only objects on which the eye as an organ of vision rests in this procedure consist chiefly of written words. This fact would tend

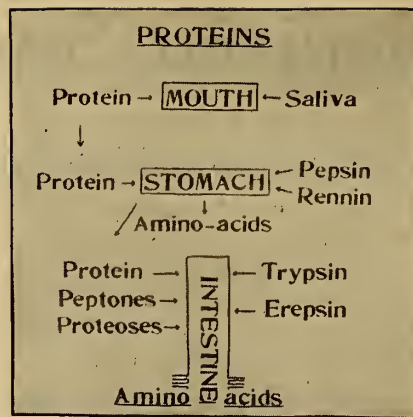


CHART 5

Illustrating the digestion of proteins. To one trained in the chemistry of foods, this chart conveys a complete message and has high teaching value.

to discredit the scheme as a visual method if it were not for the fact that the mind is aided in perceiving relations among ideas rather than merely getting visual impressions of objects. This gives the acts involved in the organization of notes an exceedingly high study-

value, which is the fundamental idea underlying this discussion.

A Typical Outline

The following outline—the result of step 5—may be considered in connection with Charts 2, 3 and 4, which represent the objective or visual results of a study of the same problem.

WHOLESALE DISTRIBUTION OF FRUITS AND VEGETABLES

- I. The farmer's interest in wholesale distribution
 1. Lack of present knowledge
 2. Relation of methods of grading and packing to distribution.
- II. Need of distributing agencies
 1. Increased production
 2. Demands of consumer
- III. Channels of wholesale distribution
 1. Various methods
 2. Distributing agencies
 - a. Primary receivers
 1. Broker
 2. Car-lot wholesaler
 3. Commission man
 - b. Secondary receivers
- IV. Place of the auction in wholesale distribution
 1. Method of sales
 2. Advantages
 - a. Quick sales
- V. Losses and wastes in the distribution system
 1. Amount
 2. Remedies
 3. Effect on cost of distribution.

The above outline is a representative specimen of the work prepared by students from their own notes and represents the final result in the process of "organizing the notes." It embodies in concrete form the outcome of the study process. This process is both analytic and synthetic. The notes had first to be analyzed into their elements; then the elements obtained by this analytical procedure had to be combined into a consistent and logical whole.

Both of these processes required visual observation, mental discrimination and bodily activity. These three activities combined are a most powerful means of impressing ideas and fixing knowledge. The mental discrimination required promotes intellectual power in a high degree, and intellectual power is the highest possible aim either in teaching or in studying. It is the highest achievement attainable in the individual's educational process.

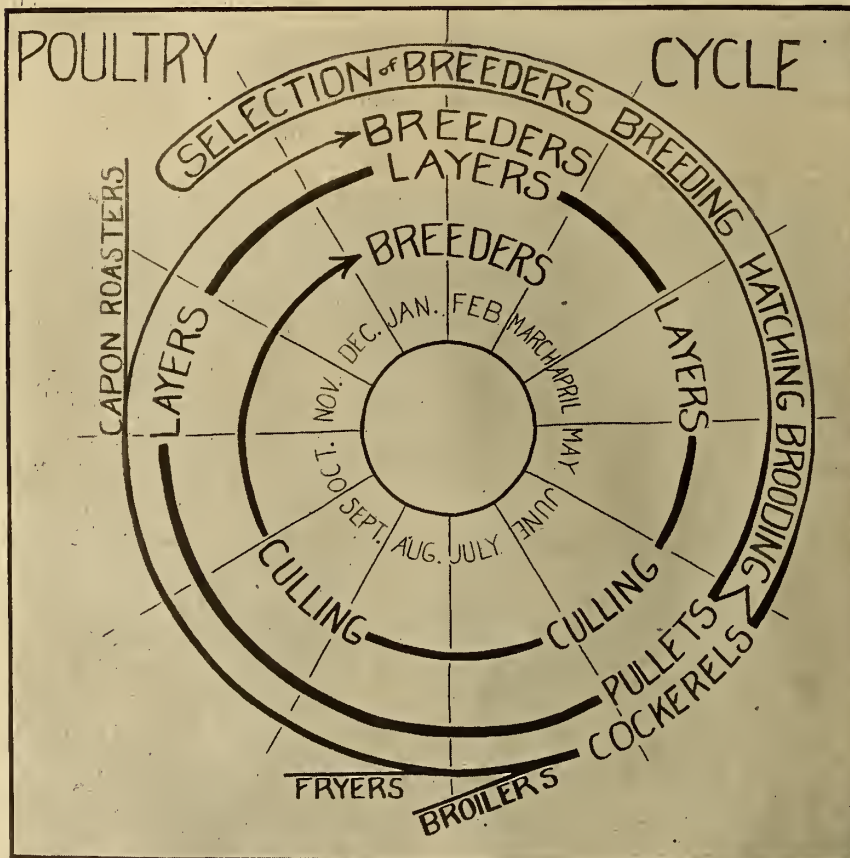


CHART 6

An admirable chart on the poultry cycle, bringing into focus of attention the series of events incident to the raising of poultry which transpire one after another during a period of several months. Such a chart makes it easy to visualize contemporary and parallel processes in the industry. It enables a speaker to trace a continuous series of dependent events through the year's cycle without confusion with another series of events taking place at the same time.

Chart-Making

Along with the preparation of the outline and the thesis, the student must gather data from which to construct charts. These charts are the objective representations of the main ideas in the thesis. They constitute the visual contacts of the student with its different divisions or aspects. The manual labor involved in making the charts constitutes his tactual and muscular contacts with the ideas in his thesis. This is a strong reinforcement of the student's visual contacts. This tactual and muscular reinforcement more than doubles the knowledge-values derived from the visual contacts alone.

The accompanying charts warrant a few observations. It will be noted that they fall into several groups, depending upon the form and the content.

Chart 1. Chart 1 is a condensed outline of points for discussion. It contains no specific information on the problem to be discussed. It is merely a visual guide which shows the auditor where the speaker proposes to begin, the ground he intends to cover, and the steps to be taken in the discussion of his theme. It may be designated as a topical outline.

Charts 2, 3, and 4. This series is designed to exhibit in a visual way the problem of "Marketing Farm Crops." The fundamental idea may be expressed in the word *distribution*. In Charts 2 and 3 there is a pictorial distribution of the agencies at work in the whole marketing procedure. Chart 4 represents visually the distribution of the consumer's dollar among the various items which enter into the price of the commodity he buys. It conveys definite information on a number of specific points and is a teaching chart in the highest degree. It needs no lecturer. As a means of conveying its particular message it rivals, if it does not surpass, the moving picture. Charts 2 and 3 are not quite so distinctively teaching charts, because they represent relationships rather than visible things. They convey a considerable amount of information, yet an explanation of some of the relations exhibited is essential.

Chart 5. This chart has some points in common with Charts 2, 3 and 4, in that it shows in a visual way certain relationships of organs and their functions in connection with foods in the process of digestion. But the messages conveyed by Charts 2 and 3 are sociological and deal with things under the rules and laws of commerce. The message conveyed in Chart 5, on the other hand, is biological and deals with substances under the laws of physical and chemical science. To the person trained in the chemistry of foods, digestive fluids and the reactions between them, the chart conveys a rather complete message. For such a person its teaching value is relatively high. To the unscientific layman, however, such a chart would convey only a vague and meager message without elaborate explanations supplemented more or less by demonstrations. But the educational value of these charts from the standpoint of this discussion does not lie in their capacity to convey information to an observer, nor yet in the value or amount of information conveyed. Their supreme educational value rests on the idea involved in the study process which the student's mind had to traverse in the accumulation and organization of the necessary data and in the invention or adaptation of a visual scheme for the objective presentation of such data.

Chart 6. The motive back of Chart 6 puts it in a class quite distinct from those previously discussed. It enables a person to visualize a cycle of events in time. It brings into focus of attention the series of events incident to a special industry which transpire one after another during a period of several months. Its informational value is relatively low, since the only messages conveyed are the events that happen and the time in which each ought to happen in a well-managed poultry plant of one-man size. All the information relating to how to select, how to breed, how to hatch, how to brood, and so on, is omitted. In so far as it conveys a clear message as to the order of events and the time each should take place, it is a good teaching chart; in so far as it requires explanations and directions in regard to carrying the industry through the year's cycle, it is a good lecture chart. It has an unusual value in this regard because it enables one to visualize contemporary and parallel processes in the industry. It enables a speaker to trace a continuous series of dependent events through the year's cycle without confusion with another series of events taking place at the same time. The study-value in the production of this chart is perhaps beyond computa-

(Continued on page 380)

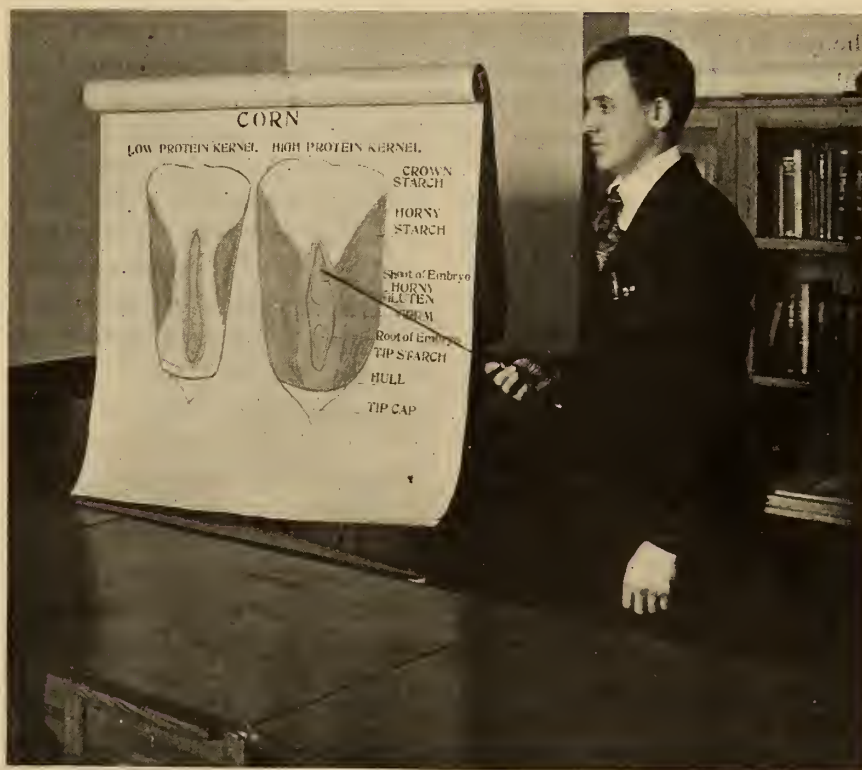


CHART 7

A student delivering his thesis before classmates. The charts from which he is speaking represent the main divisions of his theme, "Corn Growing."

To Talk or Not to Talk?

Some heart-to-heart advice on the much-discussed question of whether it is "good pedagogy" to explain the picture on the classroom screen at the moment it is on the screen, with further suggestions on "How to Use a School Film."

THERE is one question that almost invariably is asked when a school installs a motion-picture machine and launches forth upon a consistent program of visual education.

"When a film is shown in direct connection with a lesson, should it be accompanied by oral explanations during the screening?"

The answer is a most emphatic: "No!"

Experience and pedagogy—and pedagogy, after all, is only the sum of experience and common sense—should remind us that it is worse than useless to keep up a running fire of comment while the picture is on the screen. It is every whit as distracting to have to listen to a speaker when pictures are on the screen as when titles are flashed. The reason would appear to be the impossibility of talking absolutely "to" the picture. One person has done the film; another is doing the speaking. The situation is analogous to what we should have if one man were to deliver a speech and another attempt to do the gesturing for him. The two sets of impressions would not co-ordinate perfectly. On the other hand, where an orator employs gestures, a decided advantage in clarity and force results from the combination. Here there is a natural unity between visual and aural impressions.

When you show a boy a motion picture, he receives impressions that travel a direct path from his eye to his brain. If at the same time you call upon his ears to listen, you are deliberately cutting across that visual path of communication. As a result, neither the picture nor the talk gets one hundred per cent of his attention.

The wise teacher limits her oral teaching to periods before and after the filming, and during the screening she carefully holds her peace.

The Teacher's Preparation

Before weaving an educational motion-picture reel into the course of study, our wise teacher takes pains to acquaint herself fully with its content. The best way to do this, of course, is by means of a pre-review. This will consume twelve to fifteen minutes of her precious time, it is true, but it will more than justify the investment.

If for any reason, however, this is out of the question, she does the next best thing and studies the printed outline of contents. Such an outline accompanies all films intended for instruction purposes, and every teacher should insist upon having it at her disposal well in advance of her use of the reel. Indeed, in schools where a really serious effort is being made to correlate visual aids with the curriculum, all film material is selected and ordered a full term in advance, and all supplementary matter, such as syllabi and lecture notes, is kept on file in the teachers' library. Thus they are in a position to make active use of these helps in developing their lesson plans.

Preparing the Class

Knowing her material in this thorough way, our teacher is equipped to prepare her class properly for the film, so that all will derive the maximum benefit from the screen lesson. Not that she should catalog in detail just what they are to see: that would remove the important element of surprise, as

well as deprive them of the stimulating task of "reading the pictures" for themselves. Her duty is rather, one might say, to create the proper mood in which to view the picture. She must stir their interest, prick their curiosity, carefully motivate their study of the film. She must manage to make them "see," not merely "look at," the picture.

How is all this to be accomplished? In the first place, she can ask a series of questions treated in the film that have not, perhaps, been thoroughly covered in the textbook. The answers volunteered need not, preferably should not, be discussed; instead, the class should be instructed to "mark" these answers for correctness as they watch the film.

She can refer to some point in yesterday's lesson and ask the pupils to tell her later whether the film has added anything new to their knowledge of the subject; if so, what?

She can likewise select several of the most interesting and unusual of the pictured facts and comment on them in such a way as to put every child on the *qui vive*.

It is a rare film that does not abound in such features, and the clever teacher needs no coaching on how to give them a personal application with her own little brood. If the film is one on the silk industry, for example, she can suggest something of the romance of a pink hair ribbon, or the fascinating tale of how the umbrella got its silk cover, all in a way that will make every member of the class eager to read the remainder of the story from the screen.

"Seeing" vs. "Looking"

With a class prepared in this way, no teacher will have reason to complain that her pupils passively absorb the pictures. Such a complaint, indeed, is tantamount to a confession of hopelessly wrong method.

There is no type of teaching material so eminently qualified to evoke a definite mental flash from pupils—whether of objection, agreement or question—as the school film; but it rests with the teacher herself to change the pupil's customary theater habit of mere passive "looking" to the essential schoolroom attitude of active "seeing."

It is all a matter of the right preparation. Yet such preparation need not levy a heavy toll upon the brief lesson period. Just a few minutes of snappy, purposeful questioning and comment will suffice to get the youngsters "up on their toes," so to speak, ready to yield their absorbed and undivided attention to the screen, seeking definite answers to definite questions.

Handmaid, Not Substitute

Even the most ardent visualist does not dream of contending that the film can ever hope to supplant the alert, enthusiastic teacher, with all the magnetism of her personality, her human contacts. The educational film is her efficient handmaid. It is for her to plan its work, to make it do her bidding, to give it a fair field in which to fulfill its mission of bringing her

boys and girls vivid, lifelike impressions that they can never get from textbook or oral teaching alone. Unless she knows the film well enough, however, to make it an integral part of the lesson, to tie it up to her teaching of yesterday and tomorrow, she is denying it the chance to do its best work. She will get results of a kind, of course, for even poor teaching cannot entirely defeat a good film—but why not let us set our goal at the maximum result?

Discussion and Second Screening

The first showing of the film should be followed by a brisk discussion. All the alertness, the awakened interest, the eagerness to recite which the motion picture has aroused in the pupils, should be capitalized to the fullest possible extent. Let the story the screen has told be repeated in relays, Harry taking it up where Helen was stopped, Charles and Ruth completing the report. Let every misstatement be challenged on the spot. "John didn't observe that particular section quite accurately, judging by what he has told us. Watch for that part when we run the film again."

Answers are demanded to the specific questions that preceded the filming, and many other pertinent questions are asked. If the answers of different students conflict—very well, here is a further means of motivating the second screening. Pupils take a special delight in this way of checking their own and their classmates' mistakes direct

from the screen. It appeals to them as a challenge.

From every viewpoint, this second screening of the film is justified. It is an absolutely indispensable step in the visual lesson. It has the effect of clarifying and underscoring the entire lesson, of etching it "for keeps" upon the understanding and memory of each boy and girl.

Stopping the Film

To return to our main theme, then, the art of teaching with motion pictures is to give the film its necessary background of textbook study, oral explanation, recitation and discussion, and to give this oral work *before* and *after*, but certainly not during, the filming itself. "One thing at a time" should be the teacher's watchword.

If on occasion it should seem of the utmost consequence that an explanation be interpolated right then and there, for the sake of seizing that traditional "psychological moment" in whose name so many teaching crimes are committed, then by all means *stop the film and get it said*. A number of the modern portable motion-picture machines now in use are equipped with devices for interrupting the film, either completely—as when supplementing slides are to be projected—or to the extent of keeping a single picture stationary on the screen. If your projector does not happen to be so equipped, however, then be willing to let that particular psychological moment pass, and defer your comment or query until you can command the undivided attention of your class.

THERE are 20,000,000 children in this country between the ages of five and eighteen years, and fully one-fourth of this number is receiving no education whatever. There are 18,300 vacant school buildings. The cost of one battleship would build hundreds of community schools to take care of the five million children that are now being neglected or partly educated because of the lack of teachers. There were some guns used in the war that cost \$13,000 every time a shot was fired—enough to build a community school for many districts and maintain teachers for them.—DR. J. N. TATE, Superintendent, School for the Deaf, Faribault, Minn.

The Motion-Picture Problem

Extracts from Dean Charles N. Lathrop's report of the survey of America's motion-picture problems made by the Social Service Commission of the Federal Council of the Churches of Christ in America.

THE motion-picture screen should be thought of and talked of, not as a troublesome problem, but as one of the chief assets of the community for education and betterment.

THE mass of the people recognize the need of some social control of moving pictures. They have become the greatest source of amusement and recreation, we can fairly say, in the world.

A great commercialized amusement calls for some measure of social control. This principle holds true quite without regard to the opinion one may hold of the standards of art and morals maintained in the moving pictures that are being shown. The only question is: What measure and what kind of social control?

IT CERTAINLY ought to be a control that places the responsibility squarely on those who produce the pictures. And—since they produce for the whole nation—it ought to be national control.

A LARGE part of the American people object to censorship. They feel, rightly or wrongly, that it suggests limitation of American liberty, especially in a situation where there are no settled standards and where the pictures often present the news and opinions of the day. The Board of Censors can easily be capricious, prejudiced and narrow.

Many are thus brought to the conclusion that the system of licensing would obviate this criticism and offer a better method.

THE people locally in a community can effect good results by organized co-operation, in furnishing a medium through which the community can register its judgment and its desires in the matter of the choice of films, working in co-operation with the producers. This kind of effort is easily within the reach of any local group of people who really want better things.

CERTAIN situations exist in which the church or the community center can exert a direct and immediate influence on the screen. When the social and recreational life of a community is centered in such an institution, the exhibitions which it provides tend to be a substitute for commercialized amusement. The true community church—that is, a church which actually ministers as a whole—can sometimes go far toward filling the popular demand for recreation.

THE public schools and the religious educational departments of the churches can do more to improve recreational standards than all other agencies combined. The method may be indirect, but none the less effective.

THE prevalence of the bad picture is due to the prevalence of bad taste and low morals. Such pictures are a crime against art as well as against morals.

What is truly artistic is not likely to be condemned as immoral save by extremists. This is illustrated by the fact, for example, that no one thinks of draping the nude figures in the

Metropolitan Museum of Art. The development of artistic appreciation is primarily the business of the schools. On the moral side the efforts of the schools are supplemented by the church.

THE moving-picture screen reflects the prevailing social ideals, and its standards will be raised permanently only as there is progress in the life of the whole community.

IN NEARLY every parish and congregation there are men and women well qualified to study the motion-picture situation in the local community. Wherever possible an interchurch committee should be selected.

NO SINGLE right procedure can be prescribed, but there is one that may safely be pronounced always wrong. That is, to launch immediately a crusade against the picture exhibitors. They are a part of a big system for which they are only partly responsible. They are also members of the community. They may actually share, privately, the opinions of the investigating committee.

In any case, they will respond much more favorably to an effort toward community betterment that takes them in than toward one that is avowedly hostile. Compulsion should be a last resort.

ALL efforts should be positive and constructive. Emphasis should be placed on the encouragement of the good rather than the suppression of the evil.

State Fire Marshals Fight Inflammable Film

THAT Congress be petitioned to enact a law making it illegal to transport inflammable film in interstate commerce after January 1, 1925, is the gist of a resolution adopted September 13 by the State Fire Marshals' Association, assembled at Portland, Maine, for their national convention. The text of the resolution follows:

WHEREAS, The use of inflammable films in theaters and other public places is detrimental to public safety and largely increases the fire risk, and

WHEREAS, The use of films in theaters, schools, churches and lodges is continually increasing, and

WHEREAS, The use of inflammable films has been condemned by this Association, the National Board of Fire Un-

derwriters, and the National Fire Protection Association, and

WHEREAS, The prohibition of the use of such films in some states and not in others does not remedy the evil, and

WHEREAS, The prohibition of the transportation of inflammable films by the National Congress will accomplish the desired result and compel the manufacturers of films to manufacture films which are non-inflammable;

Now Be It Therefore Resolved, By the Fire Marshals' Association of North America, in convention assembled, that the National Congress be requested to enact a law prohibiting the transportation of inflammable films in interstate commerce effective January 1, 1925, and that a copy of this resolution be sent to the President and Vice-President of the United States and to each Senator and Representative in the National Congress.

The Business of Movie-Making

IF you want to know the details of how a movie is made, read the article by Helen Christine Bennett entitled "*The Making of a Movie*," published in the *Woman's Home Companion*. It is interestingly told, and is illustrated by a double page of pictures showing typical photographs as yet uncut by the editor, "trick sets," snow scenes made with pounds of salt, a wind machine, etc.

The public does not realize the amount of work attached to producing one "feature." There may be from three to five hundred scenes that have to be photographed satisfactorily. Since almost ninety per cent of all picture-making is done in the studios, sets have to be built, after designs suitable for the camera are complete. Actors work from eight-thirty in the morning until at least four-thirty in the afternoon, and often until midnight, in long stretches of time while the production is being made.

The critical editing, or "cutting," of the films is of vital importance. A five-reel feature may be cut to its 5,000 feet from an initial footage of as much as 25,000 feet. It is during this process that the titling is done.

"Although few people realize it," says the author, "almost every foot of film that is thrown on the screen has been bathed in a tinted wash which softens the black and white, making it easier on the eyes. A mid-day scene where all is bright and cheerful receives a tint of warm amber; a moonlight night has a bath in cool, bleak hues."

The picture is given a try-out in a small-town theater, and if the criticism is favorable, copies of the film are made up for distribution, often as many as two hundred prints being made in the case of a picture with a popular star like Mary Pickford. The completed film is then released to the public.

Children's Book Week

CHILDREN'S Book Week is to be nationally observed during the week of November 12—18.

The National Board of Review of Motion Pictures is energetically co-operating with the Children's Book Week Committee in helping to popularize the movement through the injection of motion pictures into the program. Many of the greatest motion pictures are based upon the world's most popular books, and the filming has in most cases added greatly to the appreciation of the story.

Therefore the National Board, gleaning the motion-picture field for the most suitable material, has supplied motion-picture theaters throughout the country with lists of recommended "book films." Every one is urged to speak to the manager of his favorite theater and indicate his choice, as bookings for Book Week programs will be made largely upon such recommendations on the part of picture-goers.

Here are some of the many listed, each of which will send a little thrill of pleasant memory to some reader:

"Black Beauty," by Anne Sewell; star, Jean Paige.

"Dead Men Tell No Tales," by E. W. Hornung; Catherine Calvert and Percy Marmont.

"The Island of Regeneration," by Cyrus Townsend Brady; Antonio Moreno.

"The Little Minister," by James M. Barrie; Alice Calhoun.

"The Prodigal Judge," by Vaughan Kester; all-star.

"Restless Souls," by Richard Harding Davis (original title, "Playing Dead"); Earle Williams.

"The Silver Car," by Wyndham Martyn; Earle Williams.

"The Son of Wallingford," by George Randolph and Lillian Chester; all-star.

Proposals for a "Limitation of Education"

*Editorial Contribution by WILLIAM C. BAGLEY
Professor of Education, Columbia University*

THE beginning of the present academic year has been marked by a new note in the public discussion of educational problems. Heretofore college and university executives have been wont to "point with pride" to increases in student-enrollment. During the past two years, however, these increases have so far surpassed all previous records that the higher institutions have found themselves literally swamped with students. Their classrooms, libraries and laboratories have been overcrowded, their instructors overworked, and their financial resources strained to the breaking-point. Now the call for a "limitation of education" has gone up from the college executives—a call for a more discriminating selection of good material and a more rigorous rejection of poor material; a call for a new policy which, in the words of one of the most notable of the presidents, will insure for the nation an "aristocracy of brains."

THE situation in which the higher institutions find themselves has not been without its harbingers and portents. Six years ago an editorial in *School and Home Education* (November, 1916) anticipated precisely the conditions that have come to pass:

"Present indications point to a very large increase in the number of students attending colleges and universities of the Middle West within the next four or five years. This increase is foreshadowed by the remarkable growth in the public high schools during the past two years—a growth that continues (but with accelerated momentum) the development that has characterized secondary education since 1890. Unless the close of the war ushers in a period of economic and industrial depression, the colleges and universities may look forward to the day when their present resources will be totally inadequate to the demands that are made upon them."

SUCH post-war depression as has been the lot of our country has apparently not seriously affected the movement toward the higher institutions; and, with the high-school enrollment still increasing ten times as fast as the general increase in population, there are only two choices for the colleges: they must either limit the students admitted or greatly expand their facilities. The college executives who have been most widely quoted in the public press clearly favor the former policy, and herein they depart radically not only from the time-honored precedents of American education, but from the hitherto dominant ideals of American life.

REACTION, restriction and repression would, indeed, be strange slogans for a manufacturer in the face of a keen, insistent and growing demand for

his product. It is hard to imagine a clergyman who would be down-hearted because his church was crowded. Even the writer who boasts that he appeals to only a select and limited audience would not complain very bitterly if the number who bought and read his books were unexpectedly increased. Under such conditions, the manufacturer would quickly borrow money to enlarge his plant, the clergyman would easily persuade his congregation to build a bigger and better church, and the writer would sit down with a new zest to his next manuscript.

THERE are some reasons, we shall grant, why the college executive may be tempted to take quite the opposite attitude. It is doubtless true that too many students attend college, not for study and the growth that comes from study, but for a good time, for athletic prestige, for making friends with those who may help them later, and for securing whatever social prestige may attach to college graduation. It is doubtless true that the resources of the college are in part wasted on students of this type. But is it not also true that a far better remedy for this evil lies in a reform of the internal life of the college itself rather than in the un-American policy of exclusion and restriction? There are institutions today that are "exclusive" in the sense that their scholastic standards of admission are higher than in other institutions. Certainly the evils in question are no less prevalent in these institutions than they are in the colleges as a whole.

IT IS maintained in certain quarters that intelligence tests have already reached a refinement which enables colleges to detect at the outset whether a student is really capable of profiting by college work. Even if one were to grant the reliability of the tests as measures of intellectual ability, the phrase "capable of profiting by college work" remains subject to a multitude of interpretations. There are good reasons to believe that work of college grade can be made both individually and socially profitable to a far larger proportion of the population than has ever as yet undertaken a college education. It is not to be denied that relatively few could profit very much by the older type of college curriculum, but this curriculum is no longer typical of what the great majority of colleges and universities offer to their students. If it be urged as better than the present type, it may be answered that it is still available to those students who can profit by it.

OUR vision may be narrow or beclouded, or both, but very frankly this desire of multitudes of young men and young women to go to college seems to us one of the most wholesome and hopeful things in a world that needs both health and hope. It is possible that civilization needs for its perpetuation an "aristocracy of brains." It is our sincere belief that it needs far more a *democracy of culture*. The special field of education with which this journal is concerned has its largest significance in the contributions that it may make to the realization of this ideal. To bring more light to more men should not be an unworthy ideal for the colleges. Certainly it is not, economically speaking, an impossible ideal in a nation

the inventive and industrial genius of which has brought an automobile to every third family.

Announcement

IN ORDER to break away from its established middle-of-the-month publication date and issue from the press each month in time to be in the mails and on the news-stands by the first, VISUAL EDUCATION is making this issue a combined October and November number, with several extra pages added. Subscriptions of current record will, of course, be correspondingly extended. It is believed that this change of schedule will meet with the full approval of subscribers, advertisers and distributors alike.



Visual Activities The World Over

BRAZIL

Rio de Janeiro. In connection with its exhibit at Brazil's centennial exposition, the United States has erected an outdoor pavilion where motion pictures will be screened to illustrate the industries, national resources, achievements and scenery of the United States.

CALIFORNIA

Los Angeles. Two thousand ministers, teachers, club leaders, judges, attorneys and civic leaders recently jammed the auditorium of the University of Southern California to witness a preview of a series of Bible films. The occasion was unique, inasmuch as the university is of the Methodist faith and has never before permitted showings of any nature in its buildings. An interesting sign of the times!

Ripon. The Ripon Grammar School is resuming its last year's plan of giving Saturday evening programs of selected wholesome films, with an admission charge of 10 cents to students

and 25 cents to others. The profits are applied to school purposes.

San Francisco. Under the leadership of Edward B. Mayer, the Visual Instruction Department of the University of California last year distributed films to more than 500 schools, clubs and churches. Mr. Mayer now has 282 educational films in his library, ready for circulation throughout the state.

CHINA

Shanghai. To make the public records more complete and to serve as a means of information for the guidance of future administrations, a motion picture has been made by the municipal council picturing the varied activities of municipal departments of the International Settlement of Shanghai.

DISTRICT OF COLUMBIA

Washington. The Crandall theaters in this city and vicinity have organized a Department of Public Relations, in charge of Mrs. J. J. Locher, who has a record for the successful

conduct of children's matinees during her term of service as chairman of the motion-picture committee of the District Federation of Women's Clubs.

ENGLAND

London. At the London Science Museum there is being prepared a collection of more than fifty exhibits telling the story of the evolution of the motion picture. One exhibit is of the ancient Chinese wax figures that were used in shadow shows several thousand years before the Christian era. Another is a Latin book published in Rome in 1646, in which Athanasius Kircher describes his invention of the magic lantern. "Magico Catoptrica."

London. In urging teachers to visualize and vivify their geography and history teaching by arranging to have their pupils attend the exhibition of the Church Missionary Society, "Africa and the East," the principal of St. Mary's College—Helena L. Powell—writes in *The Teachers' World*:

"Whether we aim at helping our children to 'think imperially,' or, with higher ambitions, hope to make them understand the aims of the League of Nations and to fire them with zeal for the brotherhood of mankind, we cannot afford to lose this unique opportunity of helping them to gain the intimate knowledge of the conditions of life on which alone an intelligent sympathy can be based. We can arouse their wonder and admiration of the skill of men in Asia and Africa by showing them the actual craftsmanship of the Indian sweet-maker or the African leather-worker, the Persian carpet-weaver or the Japanese lacquer-worker. All this may bring home to our English children what we as a nation are so slow to learn—the skill and capacity of other races. No true educator doubts that getting closer to our fellowmen, and living in fullest and widest communion with them, is the very essence of education. There can be no doubt that this exhibition can be made of the utmost value by teachers who will prepare their children beforehand to make intelligent use of it."

GEORGIA

Atlanta. The Better Films Committee arranged a "Better Films Week," September 18-22, inviting and receiving the co-operation of every theater, film exchange, motion-picture and equipment house in the city. Speakers on visual education were brought from other cities, among them Dr. Ernest L. Crandall, director of visual instruction in the New York schools, who stressed particularly the opportunity of Parent-Teacher Associations to adopt a new field of service by placing motion-picture equipment in the schools and likewise selecting films for children to see outside school hours.

Rome. Educational film showings were begun in the city schools on October 2, the same program being shown in turn at the different schools.

ILLINOIS

Chicago. The slide collection of the Visual Instruction Department has been increased to 60,000. "By the use of films and slides," says Dudley Grant Hays, Assistant Superintendent, "one-fourth of the pupils' time in learning is saved."

Chicago. A motion picture taken in the Ogden School, showing the progress made by pupils since they have been receiving dental instruction and attention, is receiving circulation in neighborhood theaters.

LaSalle. The Township High School, in connection with the Hygienic Institute, has purchased a movie machine and will use this equipment for general instruction in all departments.

INDIANA

Fort Wayne. Trinity Episcopal Church has installed a complete motion-picture projection outfit in its new Parish House, whose auditorium was planned with this installation in mind.

IOWA

Ames. During the year ending July 1, the Visual Instruction Service of Iowa State College served more than half a million Iowa people with films and slides. In all, 4,760 picture programs were given, as against only 1,070 in 1919.

LOUISIANA

Baton Rouge. Motion pictures showing the work that has been accomplished to date by the state's highway commission are in the making. Various types of highway construction, the building of bridges and fills across swamps, the cutting of roads through the hills, the industries and activities of all parts of the state, will be pictured by way of making citizens better acquainted with their state.

MASSACHUSETTS

Boston. The Home Economics department of the Massachusetts State Federation of Women's Clubs is launching forth upon the production of educational films on home subjects, and plans by the first of the year to have a sufficient number of films ready for release to constitute an hour's program.

MICHIGAN

Munising. The Wm. G. Mather High School has installed a modern motor-driven projector and a fireproof booth, and is looking forward confidently to marked increases in attendance and a low truancy average.

MISSOURI

Columbia. The Visual Education Service of the University of Missouri Extension Division has loaned and rented more than 1,500 reels of film to the different schools and churches of the state during the past year. Forty schools used a regular service of films and slides. The service is under the joint direction of C. H. Williams, director of the Extension Division, and Prof. J. V. Ankeney of the College of Agriculture.

NEW YORK

New York City. Miss Katherine D. Blake, principal of Public School No. 6, recently declared that practically all motion pictures now shown, whether for entertainment or instruction, are reeled off too quickly for children, and that the great need of schools is for a machine which will stop the reel at whatever point the teacher desires.

NORWAY

Christiania. This city, like several others in Norway, has taken over its movie theaters and is running them as municipal enterprises, in the same

manner as its markets and water plant. A profit of \$350,000 was realized in 1921 and devoted to various cultural enterprises—the studio building of a noted sculptor, a people's theater, a concert hall, a music pavilion, and the advancement of natural sciences. Several other Norwegian cities have adopted the same plan, thus getting back to the ancient Greek idea of the theater endowed by the state. In Trondhjem, well up toward the Arctic circle, the motion-picture profits distributed in this manner amounted to \$90,000.

OHIO

Cleveland. The first international convention of the National Committee for Better Films met in this city October 6-7. This meeting is part of a plan to form definite organizations throughout the country to study motion-picture problems in relation to censorship.

Oberlin. This year's senior class presented as its parting gift to Oberlin College a film picturing Commencement activities and festivities. The film includes such features as a baseball game, the daisy chain procession, the Board of Trustees, the classes of '72, '82 and '12, the Conservatory reception and tea, the academic procession, and the parade of Illumination Night.

OREGON

Eugene. With a summer class of high school teachers and principals who also do the athletic coaching at their respective schools, the University of Oregon track coach used slow-motion movies which made it possible for the class to analyze correct form in various athletic events, such as running, jumping, pole-vaulting, hurdling, football, handling the weights, etc.

Portland. "Every preacher a moving picture operator," was the slogan adopted by Charles N. Lathrop, secretary of the Social Service Department of the Episcopal Church, at the churches' general convention in September, where he devoted much of his time to demonstrating the uses to which the movie can be put in promoting the work of the church.

TENNESSEE

Knoxville. The Better Films Committee of the woman's club, although only a few weeks in existence, has secured the co-operation of the city's principal motion-picture theaters, which are now making a point of including in their advertisement the phrase, "Endorsed by the Better Films Committee," whenever such is the case.



Projection Queries & Answers

Readers are invited to address queries on practical projection matters to Projection Department, care of VISUAL EDUCATION

What is meant by a "fire-shutter" in moving-picture projection machines?—D. D. S., CHICAGO.

A fire-shutter is a piece of metal which automatically cuts off the light from the film when the machine stops or runs slowly. Its purpose is to prevent the film from taking fire if the machine should stop.

The screen must be brilliantly illuminated if the pictures are to be a success. If the screen is nine by twelve, for example, there are 108 square feet brightly illuminated. Now, all of this light passes through a small aperture whose dimensions are a little less than three-quarters of an inch by one inch. Even more light than that on the screen passes through the aperture, for some of it is lost by not entering or passing through the projection lens.

Besides the intense light that is concentrated on the aperture, there is a large amount of heat. The light and heat together are so intense that if the film were stationary its temperature in a second or two would rise to the burning point; a fire would result, and the film and machine would be destroyed.

The mechanism controlling the fire-shutter is so constructed that it raises the shutter when the speed of the machine exceeds a certain amount, and the shutter is interposed again when the speed falls below the fixed amount. If

the machine is stopped the shutter itself becomes hot in the course of time. In order that this heat may not set the film on fire, the shutter in good machines is made of two pieces of metal separated by a small air space.

All operators of moving-picture machines should see that their fire-shutters are well constructed and that they function properly. Failure to do so is inviting serious trouble.

* * *

What is the gold-glass screen used on the Acme motion-picture machine, and what is its purpose?—G. H. T., DAYTON, OHIO.

The gold-glass screen, an invention of Dr. A. H. Pfund of Johns Hopkins University, is one of the most interesting recent applications of science to motion-picture projection. It is a piece of glass coated on one side with a very thin and uniform film of gold. The film of gold is deposited in a vacuum by a special electrical process.

The purpose of the glass shutter is, in the first place, to protect the film when the machine is stopped or running slowly; that is, it takes the place of the fire-shutter discussed in the answer to the first question. Its purpose, in the second place, is to show the picture as a still when the machine is not running.

Every one knows that gold is yellow.

The reason is that when light of all colors (white light) falls on it the yellow is reflected and nearly all of the remainder is absorbed. Since only that which is reflected affects the eye, gold is yellow. This gave Dr. Pfund an idea: if a thin film of gold were placed on glass it might reflect back the yellow, red and heat rays and transmit the remainder. Such turned out to be the case.

The screens used by the Acme reflect back 95 per cent of the heat and transmit most of the light. The result is that when the machine is stopped, the gold screen is automatically interposed. Instead of cutting off all of the light, as ordinary shutters do, it reflects back the heat and transmits the light, with the result that the picture is seen on the screen as a still. Since the gold screen reflects the heat it does not become hot, as do the metal shutters which absorb the heat.

Great importance is attached to the gold-glass screen for educational work, because it enables the teacher to stop the machine at any point and to make explanations while the projector is being used virtually as a stereopticon. Such applications of science as this are more wonderful than anything ever conceived of by the most imaginative writer of fiction.

—F. R. MOULTON.

Stereoscopic Films

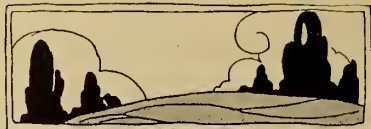
STEREOSCOPIC, or three-dimensional, motion pictures have long been the dream of all interested in the "movies." If motion pictures could be improved to the degree that the center-table stereoscope, familiar a generation ago, improved ordinary pictures, reality would almost be equaled.

The dream seems to be near fulfillment. Nearly two months ago Mr. Barnett Harris of Chicago gave an exhibition for the benefit of newspaper representa-

tives, motion-picture experts and scientists, at which the writer was present. All agreed that the results were perfect. In order to obtain them, however, it was necessary to look through what Mr. Harris terms a "rectifier," which in appearance is like rather large spectacles. The rectifiers are constructed according to the position of the seat with respect to the screen, but they require no adjustment by those who use them. The necessity of using the rectifiers may constitute a serious

objection to the method; but when we remember that although spectacles, telephone receivers and even hats are objectionable they are nevertheless universally used, the difficulties that the rectifiers present may not be insuperable.

More recently, on September 29, stereoscopic motion pictures were shown in Los Angeles by the Fairall method. In this method the right and left eyes look through red and green spectacles respectively. Then the right eye can see only the right picture and the left eye the left picture, even though they are superimposed and mixed on the screen.



Vocational Department

Joint Convention of Vocational Education Bodies

THE next annual convention of the Vocational Education Association of the Middle West will be held in conjunction with the annual conventions of the National Society for Vocational Education, the American Home Economics Society, and the National Vocational Guidance Association, at the Cass Technical High School, Detroit, Mich., November 29 to December 2.

On Wednesday evening there will be Educational Dinner meetings called by the Technical, Commercial and Agricultural Sections of the Bureau of Education and the Federal Board for Vocational Education. Thursday evening there will be a real Thanksgiving Turkey Dinner, with entertainment provided by the Detroit Local Committee. An evening that will be the last word in good fellowship is guaranteed.

At various past conventions many members have remarked that a visit to the commercial exhibits alone was worth the time and effort spent in coming to the convention. This year, it is expected, the exhibits will eclipse anything ever before attempted in vocational education. The ample space available in the Cass Technical High School will permit of educational exhibits of an extent never before possible. There will be sixty-four booths, in which displays of all kinds of equipment, textbooks, etc., pertaining to vocational education will be shown. The Detroit schools in themselves will furnish educational exhibit material which will be highly instructive. Management of the Commercial Exhibits is under the direction of Mr. A. G. Bauersfeld, Supervisor of Technical Work in the Chicago High Schools, 460 S. State St., Chicago.

The \$1.00 annual dues for membership in the Vocational Education Association of the Middle West should be sent to Mr. L. H. Wahlstrom, Secretary, 1711 Estes Ave., Chicago. An additional fee of \$2.00 will be charged at the

convention, admitting to all meetings of the joint convention and to the printed reports issued by the organization.

Reduced rates will be obtained from the railroad companies, and the Hotel Statler, Detroit, will be the official headquarters.

Thursday and Friday mornings and afternoons will be designated for section meetings and round-table discussions. General meetings will be held on Friday evening and Saturday morning and afternoon. At one of the general meetings Mr. William B. Owen, president of the National Education Association, will present a very important plan bearing on the future relations of the Vocational Education Associations to the National Education Association. No one interested can afford to miss this one great Vocational Education convention of the year.

Some of the topics to be discussed in sectional meetings are as follows: Commercial Courses in Junior and Senior High Schools; Commercial Work in Continuation Schools; Commercial Work in Evening Schools; Retail Education; Industrial Work in Continuation Schools; Industrial Arts in Junior and Senior High Schools; Home Economics in Evening Schools; Home Economics in Junior and Senior High Schools; Home Making; Home Economics in Continuation Schools; Problems in Agricultural Education; Foreman Training; Evening Industrial School Education; Apprenticeship Training; Training Women in Industry.

At this convention you will be told that Vocational Education has been given much aid in the past and is now on trial. Shall its future be in an upward or downward direction? You certainly are interested.

* * *

The objects of this association shall be to study problems relating to vocational education and to bring the results of this study to public attention for the purpose of fostering types of education that will meet the vocational needs of youth and the reasonable demands of industry for

efficient workers, while preserving those elements of general education necessary for good citizenship in a democracy.—*Extract from the Constitution of the Vocational Education Association of the Middle West.*

* * *

Films on vocational subjects, regularly shown to pupils in the upper grammar grades and in the junior high school, perform the double function of giving information as to actual shop operations and of helping students to discover their own interests and aptitudes.

* * *

In the first mimeographed issue of the "News Letter" published by the Junior Division of the U. S. Employment Service, bearing date of September 1922, is incorporated the following announcement of its purpose:

The Department of Labor, through the Junior Division of the United States Employment Service, is in a position to act as a clearing-house for information, not only from the offices directly connected with the Junior Division, but also from the general field of vocational guidance and placement. With the view of bringing the co-operating offices into closer mutual touch and of presenting matters of interest from the national office and from the field at large, this News Letter has been instituted as a regular activity of the federal office.

Readers interested in vocational guidance and placement should request to be placed on the mailing list of the Junior Division for this material.

* * *

"Too often," declares this News Letter, "we find that people outside the work have no conception of a placement office as anything more than a job-getting institution, or even a job-listing station. For a wider understanding of our task, and also for the help it will be to our own offices to exchange experiences and to have norms of effort and accomplishment by which to check up activities, the Junior Division plans to issue a number of pamphlets setting forth the work of the co-operating offices."

As the first fruits of this plan, there has been issued a bulletin prepared by Mr. Wesley M. Rossier, Field Secretary of the Department of Vocational Guidance, Pittsburgh Public Schools, setting forth the activities of the Pittsburgh Junior Placement Office, co-operating with the Junior Division, U. S. Employment Service.

A copy of this bulletin will be mailed on request. Ask for Field Work Series No. 1.

Use of Slides in Teaching Public Speaking

IT WAS our fortune (at the time we considered it our misfortune) to be placed in charge of a public speaking class with instructions to develop the ability in pupils to stand up and talk on a subject without having memorized their talks.

Futile experiments of several kinds were conducted in endeavoring to cross "the Colorado Canyon of the Mind" which lay between the memorized speech and that not memorized. Pupils who had acquired the knack of getting up before an audience and not feeling embarrassed while they recited "Lincoln's Gettysburg Address" were on the point of swooning when it was suggested to them that

they get up on their feet before an audience and tell of "My First Impression of the Normal School" or "My Visit to the St. Louis Fair."

It seemed to the teacher that an interminable road lay ahead, before he would be able to have the pupils speak without having committed their speeches. He had noticed, however, that pupils who had prepared their lessons on geography on the lantern slides had no difficulty whatever in expressing themselves. He therefore resolved on the radical innovation of trying to use this material to develop speaking without the speech having been memorized. The success of the plan was marked. The pictures offered an outline which was ever before

the pupil, who felt that the responsibility was lifted from his shoulders and placed upon the lantern. Thus his self-consciousness disappeared, and he was free to speak without feeling that he was the center of the universe and that all depended upon him.

Later he was called upon to make the same talk, this time not using the lantern slides. He was able to do so with ease, as he felt he had already given it once with the lantern and so had confidence in himself. This plan has been tried by us for three years, and in all cases has been a pronounced success.

—George A. Barker, in
"The School Century."

News of the Visual Educators

THE Atlanta public schools have appointed J. W. Coffman as the supervisor of their new Department of Visual Instruction. Mr. Coffman is launching an ambitious and carefully thought out plan of operation. Some novel features of the work he is undertaking are described in detail on another page of this issue.

* * *

Russell W. Ballard has been appointed director of the new Department of Visual Education in the East Chicago public schools, East Chicago, Indiana.

He writes that the boys in the Vocational Training Department have completed the construction of a body for the Ford engine whose purchase was authorized by the Board, thus making possible the transportation of their portable Acme projector among all the city's schools, until such time as the ideal equipment of a projector and a trained operator for each school is achieved.

One classroom in each building has been set aside as the school's projection room and provided with dark curtains. The work of the school is departmentalized above the third grade, and every class comes to this projection room for

instruction. "The teachers," writes Mr. Ballard, "welcome this supplement to their teaching material. They are advised of the film subject several days before my coming, so that they can take up preparatory discussions in class. The children are therefore placed in a favorable frame of mind for this concrete experience. All the teachers in the building are notified of what the children have seen in the projection room; and the motion-picture subject in geography, for example, forms the basis of their work in English and other studies."

In addition to educational films, the program of the department includes the use of stereographs, slides and postcard pictures projected by means of a Balopticon. Four of the Keystone "600 sets" are in use throughout the system. As another phase of the work in visual education, a modest museum is in process of development, which the children themselves are helping to gather together. Class visits to local industries are being planned by way of vitalizing the teaching of local geography.

Eighty per cent of the population of East Chicago being foreigners, great attention is paid to the evening classes

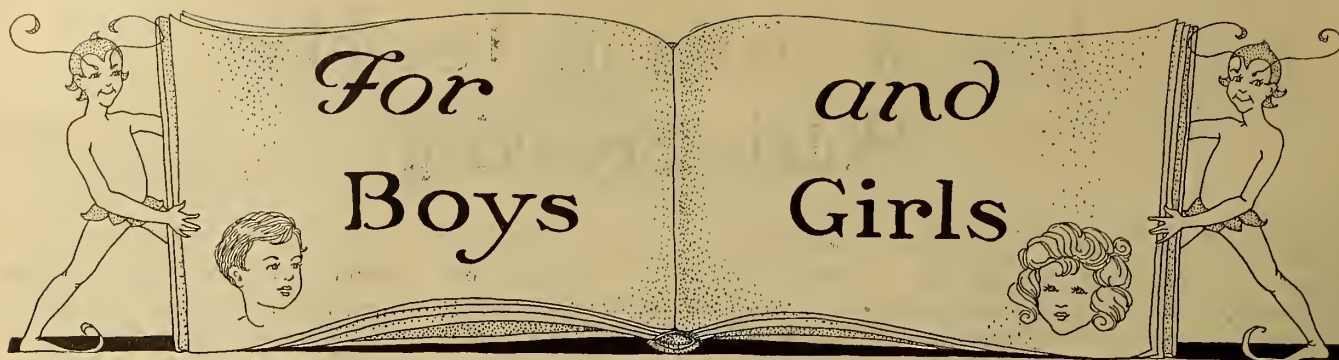
in English and citizenship training for adults. This instruction is supervised by Mr. Ballard, who plans to employ visual aids, particularly motion pictures, as a means of enlivening and speeding up the work.

* * *

Professor W. R. Duffey, head of the Visual Instruction Division of the University of Texas, at Austin, has resigned his position with that institution, having been called to Weymouth, Mass., by the death of his father. He had been connected with the Extension Bureau for several years, and was active in the community life of the University.

* * *

A. P. Hollis, of the Visual Instruction Service of the North Dakota Agricultural College, is absent on leave and at present is doing special work at the University of Chicago, co-operating with Dr. Frank N. Freeman in the research in visual education which the recent \$10,000 grant from the Commonwealth Fund has made possible. The work of the Visual Instruction Service is being carried on in his absence by P. M. Rudd.



All About My First Fairy-Tale

Dictated by Baby Peggy

I WAS sitting in the limousine in front of the studio, waiting for my daddy to come back and tell me whether I was going to work or whether I could go back home and play with the children in my neighborhood. Of course, I would much rather dig in the dirt in our backyard than work under hot lights.

Just then my enthusiastic director, Alf Goulding, popped his head in the door and said:

"Do you remember the story I told you about that good little girl who went to visit her grandma and wore such a pretty cape?"

I was all eyes and ears. I remembered how delighted I was when Gouldy told me the story, in between "sets." By "between sets" I mean while the men were preparing the next scene which I was to play in. I was so thrilled with the story that when it was finished I said, "My! but I wish I was little Red Riding-Hood!" That gave my director an idea which stuck in his head until now—and you know, when a director gets an idea into his head he is just like us boys and girls when we want a toy or some candy.

That day, when Gouldy told me that I was going to do "Little Red Riding-Hood" as my next picture, I forgot all about playing with the other children and pretty soon daddy took me down to get my new costume. As you can guess, it included a pretty red cape with a cunning hood.

The next day I started my work in "Little Red Riding-Hood." The first thing I had to do was to serve the coffee for breakfast, and I can tell you that coffee-pot was real hot. My fingers were tingling when I got through with that scene. Some of the coffee splashed up on my dress, and we had to

stop the scene until the dress was cleaned.

There were all kinds of children in the first part of this picture, and I was so happy playing with them I forgot that there was a camera grinding away.

Then I had to play "Miss Ritz" or the "stuck-up girl" when that little freckle-faced kid tried to quote poetry and make love to me. He's a sweet boy, even though he had to play the villain in my picture, but just the same my heart went pitapat when Rudolph Valentino Jr. came on the scene and kissed me on the cheek. I thought I'd fall through the ground, I was so embarrassed.

Then came the time when I had to put on my new red cape and leave for grandma's. But before I go any further, I want to tell you that the soap I had in my mouth didn't taste any too good. You know how it tastes when you are blowing soap bubbles and instead of blowing *out* you blow *in* the water? Well, that's what I had—a mouth full of soap-water, and not because I had told a "story" or because I was bad, either!

In the basket that I was carrying to grandma's there were some delicious cookies and other good things to eat. So when the director wasn't looking I "sneaked" a cooky, and when he called me I looked at him with my cheeks all puffed up. Really, he got scared—I thought I was getting ready to throw a fit, I guess; but when I answered him the crumbs of the cooky came out with each word, and there I was, caught in the act.

The most thrilling part was when I actually had to meet the wolf, and if you don't think I was scared, then I'm surprised at you. I never ran so fast in all my life, and I was mighty glad

to get into the trunk of a tree before the wolf could sample my red cape. After I thought he was gone I came out, only to discover his snout almost touching my face! The forest in which they were shooting this picture was so dense, and the wolf's coat looked so much like the bark of a tree, that I could hardly distinguish him from the tree. But I guess I dazzled him with my red cape, because he didn't make a leap for me and only started chasing me after I started to run, only I reached my daddy's arms before the wolf reached me.

Afterward, when the storm came up, it was a lot of fun to get out of the rain and hide under the big toadstools. And just imagine, after the rain stopped "Little Funny-Face" came up to me with an umbrella! I didn't need him *then*; he should have come to my rescue when the wolf was after me, or when I needed protection from the storm. But you know how boys are—they are *never* around when you need them.

Then came the scene in the cabin where old Mr. Wolf fooled me. But I fooled him, too. I crawled under the bed before he had a chance to say "g-r-r," and by that time one of the nice big men grabbed a-hold of him and squeezed his neck real hard.

When I was through with that scene Gouldy gave me a box of candy, and Mr. Stern came over and gave me one of those big dolls that says "Mamma" every time you squeeze it. I wish somebody would make a doll that says "Daddy," just to be different! It took us exactly two months to finish this picture, and I had to work very hard and make one scene after the other because it didn't quite suit Gouldy. Between you and me (but don't tell *him*



I said this), he is more cranky than a cross-patch; but just the same, when I'm through working he is very nice to me, and we have lots of fun together.

I wish some of you boys and girls would write to me in care of the editor of this magazine and tell me what you think of my picture, "Little Red Riding-Hood," when you see it on the screen. I am also anxious to know whether you liked this letter from me

in print. If you like my work and enjoy hearing of my experiences in making these pictures, just write to the editor and say so, and then I will tell you some interesting things about my experiences in making "Jack and the Beanstalk," which I am now completing.

I know all you boys and girls would enjoy playing in these favorite old fairytales yourselves, and I want you to know that I enjoy "making believe" just

as much as you would. I hope that I shall be allowed to make many more stories like "Jack and the Beanstalk," "Hänsel and Gretel," "The Little Match-Girl," "Snow-White," and "Alice in Wonderland." Have you a favorite fairy-tale which you would like to see made into a movie? If you have, let me know.

Your own pal,

BABY PEGGY.

A Visual Contest for Christmas Prizes

THE last time VISUAL EDUCATION announced a prize contest for boys and girls, you were given a series of pictures and asked to translate them into words.

This time, how about turning it the other way around? That is to say, the magazine will suggest a story and it will be for you to translate it into pictures!

The Story

The story chosen for this purpose is that fine old fairy-tale which you all love to review at Christmas time—Hans Christian Andersen's "The Fir-Tree." You can find it in any of the Andersen books or in almost any collection of the wonder tales of the world, for it is one of the most popular bits of fairy-lore in all literature. If you have any trouble, your favorite librarian will help you to find it, or perhaps mother will lend you a hand—and a pair of eyes—in locating it in one of the books at home.

You remember, it is the story of the pretty little fir-tree that was so discontented among its forest neighbors and always longing for adventures out in the wide world. By and by its chance came, and it stood adorned and lovely in the radiance of Christmas Eve. But next day came the lonely attic, then the rubbish heap, and finally the fire that wrote "Finis" to the story of the little tree that didn't know when it was well off.

The Picture Translation

All sorts of interesting characters are introduced into the action—characters like birds and rabbits, storks and woodcutters, merry little children and friendly little mice, 'n ever'thin'! As you read, you find the story shaping itself into mental pictures, vivid and clear. In other words, you *visualize* the happenings as you proceed from paragraph to paragraph.

Now, suppose you translate some of these mind pictures into line and color and arrange them in such a way as to tell the story (perhaps with the help of a few short captions) to any one who has not read it. You might make up a little booklet, with one picture-chapter to each page, or you might use the poster form. Your pictures may be original, done with pencil, pen-and-ink, crayon or water color, or cut from colored paper; or, if you prefer, you may search through mother's old magazines, clip what you find that suits your purpose, and so build up a story from borrowed pictures. You see, you have complete choice as to your materials, and all the freedom in the world to develop something really artistic.

The Conditions

Send your booklet, your poster or your sheet of drawings or cut-outs to the Contest Editor, care of VISUAL EDUCATION, 806 W. Washington Blvd., Chicago, so that it will be received not later than Christmas Eve.

On a separate slip supply these details:

Name
Age Grade.....
School
Address
Signature of Teacher or Parent.....

The Prizes

A cash prize of \$5.00 will be awarded to the boy or girl submitting the most complete and attractive picture story of "The Fir-Tree." A \$3.00 prize will go to the second best, and one of \$2.00 to the third best.

The names of the three prize-winners and of those who win Honorable Mention will be published in this department in the February number. Perhaps the winning contribution will also be reproduced for all of you to see, should it prove of such a character that a halftone would do it justice.

Just For Fun

Well, Why Not?

While walking down the street the other day with Lloyd we met a lad who was pigeon-toed. Lloyd said, "Auntie, look how cross-eyed that boy's feet are."—*Chicago Tribune*.

A Safe Risk

First Undergrad.: "What shall we do?"

Second Undergrad.: "I'll spin a coin. If it's heads we'll go to the movies; tails we go to the dance, and if it stands on edge we'll study."—*The American Boy*.

Educated Dog

"Lay down, pup. Lay down. That's a good doggie. Lay down, I tell you."

"Mister, you'll have to say, 'Lie down.' He's a Boston terrier."

Patience, Please

Tommy had been playing truant from school, and had spent a long, beautiful day fishing. On his way back he met one of his young cronies, who accosted him with the usual question, "Catch anything?"

Tommy, in all the consciousness of guilt, quickly responded: "Ain't been home yet."—*The Pathfinder*.

Suggestion to Teachers and Parents

Teachers are invited to assign this exercise in visualization to their classes as a special classroom project for Yuletide, and to urge all their pupils to try for the money prizes. It is not essential that the contestant be a subscriber to this magazine. Parents, likewise, will find this interesting exercise valuable in helping their boys and girls to form correct mental pictures of what they read.

Let us have such a response that a whole art gallery of pictured stories of "The Fir-Tree" will result.

Farmers and Films

Questionnaire Proves That Farm Advisers Value Films

RETURNS from a questionnaire on motion pictures sent to some 3000 extension agents of the U. S. Department of Agriculture indicate that county agricultural agents and other extension workers are keenly interested in educational films. Of 982 agents reporting, 815 are in favor of using motion pictures in their work, 13 opposed to them, and 145 non-committal.

About one-third of the agents reporting already use motion pictures, and about one-half of these have had experience with portable projectors.

There is a strong demand for more films on livestock subjects, club work, soil improvement and co-operative marketing. Many agents ask for "more fun" or "more human interest" in educational films, and there is considerable complaint of slow distribution. The last objection the department hopes will be met eventually by the establishment of adequate state distributing centers.

New List of Films Issued by U. S. Department of Agriculture

THE Department of Agriculture has prepared a complete new catalog of department films, with brief descriptions and full information as to rental and purchase. Every non-theatrical user of films should have a copy of this list. Ask for Department Circular 233, remitting five cents to the Superintendent of Documents, Government Printing Office, Washington.

The films are listed in nine principal groups, under the bureaus that are authority for their subject matter: the Bureaus of Animal Industry, Plant Industry, Entomology, Agricultural Economics, Public Roads, Biological Survey and Chemistry, and the Forest and States Relations Services. These motion pictures, although intended primarily for extension and field workers of the department and of officially co-operating institutions, are available to others making application through their county agent, state agricultural college, or other co-operating agency. Applications should be made well in advance, should indicate several choices of subjects and dates,

and should be accompanied by a schedule of proposed showings.

In view of the great demand for its pictures, the department strongly urges the organization of circuits over which the films may be distributed. The circular states:

The Department of Agriculture has found that the showing of films on circuits makes it possible to get the maximum service from the pictures. In such circuits county agents, home demonstration agents, club leaders, bureau field men, or any other class of department or state extension workers may be organized and films may be routed from one to the other. It is essential in such cases for some responsible person to act as the agent for the entire circuit. Arrangements should be made with the department by this person. The films will be sent to him and he will be expected to return them in good condition to the department.

"The outstanding need in this work," according to the preface of the circular, "is for easier and quicker distribution, which can be best supplied by the state institutions co-operating with the department. To them and other distributing agencies is offered the plan of purchasing prints at manufacturing charges." Prices and conditions of sale are quoted in the circular.

Movies as Crowd-Getters

A LETTER from G. E. Metzger, former Assistant Farm Adviser in Macoupin County, Illinois, contains an interesting report on the value of agricultural films in building up the attendance at Farm Bureau meetings. He writes:

We held three series of Farm Bureau meetings, twenty-one meetings in each series, over the county last fall, at which we used a portable projector and motion pictures. At the first twenty-one meetings we had a total attendance of 1,304; in the second series a total attendance of 1,680; in the third series, in which there were only twenty meetings, an attendance of 1,850.

At the Annual Farm Bureau meeting held last November, we had an attendance of only eighty, although for this meeting we advertised a very good program consisting of music and some of the best speakers in the state.

Last spring it was almost impossible to get more than twenty or thirty men out to a meeting. Now they come freely and do not expect pictures every time. We credit to the pictures a great deal of the increase in attendance and of the interest manifested in Farm Bureau work throughout the county.

This experience, to judge from current reports, seems to be typical of conditions the country over where the motion picture is being drafted into the work of educating the farmer to adopt "better ways" and of spreading the news of recent discoveries

made through research conducted by the Department of Agriculture.

Tick Eradication in South Inspired by Government Movies

FAR from railroads and from cities where entertainment and instruction in agriculture are available, the portable motion-picture outfit of the Tick Eradication Division, Bureau of Animal Industry, is driven by auto or pulled by mules into isolated sections of the South, where thousands of people are receiving the message of better agriculture and more profitable livestock. To many it is their first experience of motion pictures.

The meetings are held chiefly in schoolhouses, but owing to the small size of many of the buildings the shows must frequently be given out-of-doors. The regular program is six shows a week, rain or shine, and men, women and children gather from miles around to see the pictures.

The project of which this outfit is a part is officially known as preliminary work in tick eradication. Cattle ticks, which are the villains in the picture, spread Texas cattle fever, the costly disease against which a large area in the South is still quarantined. Motion pictures have been proved to be the ideal method for explaining the life-history of cattle ticks, the difference in size and value between tick-infested cattle and healthy animals, and the many benefits that follow the eradication of ticks by systematic dipping.

Short talks and the distribution of literature supplement the showing of department films on the subject. After the show the crowd usually breaks up into small groups to discuss the picture and the advisability of launching a campaign for the eradication of the pest. It is in these group conferences that public sentiment on the subject is born.

Farm Movie No Longer an Experiment

AS A result of the purchase of a moving-picture projector by the Humboldt County Farm Bureau and the subsequent showing of the film, "Out of the Shadows," to members in the various townships, more than two hundred new herds of cattle have been listed for tuberculin testing in that county.

"When the Farm Bureau directors decided to purchase the machine," said county agent H. C. Flint, "it was with the idea that it was purely

an experiment, and for this reason it has been carefully watched as to results. Now, however, the machine is conceded to be past the experimental stage and every Farm Bureau member is enthusiastic in praise of the work it has accomplished.

"That the pictures are doing real work was brought out in the remark of one member as he was leaving the hall, after seeing the film 'Exit Ascaris': 'That film has shown me how to save \$100 a year, and any one who has an opportunity to see it and doesn't seize the chance is just a plain fool.'

"Most of the townships in this county have modern consolidated school buildings, where the movies are shown. This is another argument in favor of consolidated schools, as they provide small towns and rural communities with a fine meeting-place and community center."

Films Create Interest in Club Work

"ONE of the finest helps afforded since coming here in carrying on boys' and girls' club work," declares F. R. Williamson, club leader for Linn County, Oregon, "is the educational livestock films which have been shown here. These pictures have aroused great enthusiasm for livestock clubs, and especially for pig clubs. Not only are the boys and girls reached, but the parents and older people are made to realize the great good that is being done through club work.

"The clubs are the best thing for the farmers that has ever been undertaken. Through this work they are learning the value of keeping books—something they never thought of before their sons and daughters started in club work. And then, too, the youngsters of today who are preparing for the future through club study, will be better farmers when they assume the places of their fathers."

More Than "Meetings"

IOWA township Farm Bureau meetings are more than mere "meetings," according to W. H. Stacy, in charge of rural organization work with the Iowa State College extension service; they are social and educational gatherings as well. During the past year more than one-fourth of the 1,591 township Farm Bureaus which met regularly once a month gave musical programs, debates, moving-picture entertainments or plays

or invited good speakers to address them.

This kind of meeting, says Mr. Stacy, is developing leaders in rural communities who will help make the farm a better place to live in the future.

Moving pictures are extensively used. More than fifty county Farm Bureaus have purchased their own motion-picture machines and book films from the Visual Instruction Service at Iowa State College. Usually two or three reels are shown at the opening or the close of the meeting.

For successful meetings Mr. Stacy offers the following suggestions, based on the reports of last year's township bureaus:

Have a strong local leader who can command the meeting in a snappy and interesting manner.

Use active committees for programs and refreshments.

Provide interesting local-talent programs. Arrange for instructive talks by good speakers and have these talks followed by general discussion.

Plan the work so that it will fit in with the educational program of the County Farm Bureau.

Provide special features and motion-picture attractions as a part of the programs.

Have a satisfactory meeting-place.

Announce a definite schedule of meetings that does not conflict with other affairs.

Use efficient advertising to announce meetings to the community.

For Recreation, Too

COUNTY Agent Sibole of Marinette County, Wisconsin, believes that the film in farm extension work has a double purpose to fulfill: education plus recreation.

"Farmers work hard," says Mr. Sibole, "and they need relaxation. They appreciate a certain amount of enjoyment, which at the same time can be coupled with educational matter. As one farmer remarked to me after a recent agricultural meeting: 'I plowed corn all day as hard as I could work, but tonight I feel fine, whereas if I had stayed at home I should have been dog-tired.'"

Nodaway County Films Itself

A YEAR and a half has gone into the making of a film picturing the scenic attractions and agricultural activities of Nodaway County, Missouri. From a small beginning featuring only a few farm scenes and stock pictures, it has grown to four and a half reels of film, valued at five thousand dollars.

The story includes every phase of rural activity, with interesting pic-

tures of farm homes, fine blooded stock, fields of waving wheat, alfalfa harvesting, school boys' and girls' pig club scenes, and the like, interspersed with scenic views—a bit of woodland or riverside—and now and then a "comic" for sweet variety's sake.

The production of this county film was undertaken as a home enterprise, to show local groups what is going on in their own county, to awaken them to a better realization of the county's natural resources, their agricultural, industrial and educational advantages, and to encourage them to boost for agriculture, the state's greatest asset. Many calls for the loan of the film are being received from neighboring counties.

One Iowa County Going Abroad

IDA County, Iowa, is going abroad, according to Frank Kerrigan, county agent. A swine specialist of the U. S. Department of Agriculture has been taking moving pictures of Ida County hogs, with the express purpose of taking the films to Europe, where they will be shown to stimulate the eating of pork.

The pictures show hogs feeding on alfalfa and rape, the use of a self-feeder in the fattening process, the well-groomed appearance of the animals when ready for market, and the like.

When completed the film will show the various methods of feeding and caring for hogs from the time of birth until ready for the table. It will be shown in England and other European countries by the U. S. Department of Agriculture, co-operating with the English board of trade.

PROF. Earl Kilpatrick, director of the Extension Division of the University of Oregon, characterized motion pictures as "a neglected educational opportunity" in an address on "Moving Pictures in the Classroom." Prof. Kilpatrick contrasted the length of the exposure in Daguerre's time, when more than five hours were required to get the picture, with that of today, when one-fifteen-thousandth part of a second is all that is necessary, under a new French invention. Since one-sixteenth of a second is a rapid enough exposure for motion pictures, the possibilities under this marvelously accelerated speed, he declared, become virtually infinite.



The Films in Review

ROBIN HOOD

WHEN Griffith gave *INTOLERANCE* to the picture-loving world, it was believed he had set a standard for film production on a colossal scale which it would be almost impossible to parallel. But now has been created a photodrama that not only equals but even surpasses Griffith's magnificent spectacle.

In the historical romance of *ROBIN HOOD*, Douglas Fairbanks has evolved a genuine screen classic. Here is cinematic literature of a kind to delight and satisfy educator and student, although, it must be confessed, at some sacrifice of satisfaction to the ordinary fan, who looks for entertainment first of all and is apt to be a little impatient with the "atmosphere" that delays the telling of the actual story.

The production is a delightful combination of fact and fancy, depicting the chivalrous and romantic spirit of the twelfth century; an enchanting review of an ancient legend, illustrated by colorful pictures of the pageantry and valorous deeds of eight centuries ago. Never before have we had a film with an historical background so imposing and so technically perfect as Fairbanks provides in *ROBIN HOOD*.

The sets used are stupendous; no other adjective fits the case. Towering castles, spacious banquet-halls, entire kingdoms, were erected—sets so immense that one cannot measure their magnitude, so huge as to dwarf even the chief characters of the play. Against these backgrounds move great masses of people—thousands of armored knights, peasants, kings, churchmen, courtiers and ladies fair. The knights make a veritable forest of their lances as they gather for the great tournament, which is developed with meticulous care for detail. Another spectacular scene which impresses the beholder with its magnitude and its fidelity to fact is the cavalcade of Crusaders leaving for the Holy Land.

Through all this grandeur is woven the familiar tale of Robin Hood and

his men of Sherwood Forest—that romance which, ever since childhood days, has thrilled us in story and song, on the speaking stage and in opera. Douglas Fairbanks has been slipping somewhat in public favor and has been outstripped by some of the younger matinee idols in the hearts of his once devoted admirers; but here the old Fairbanks "comes back with a smash." It is a debonair, fearless daredevil he gives us in his Robin Hood, playing through life with his merry band, yet ever ready

when real duty calls and with his well-aimed arrow terrifying all his enemies.

Surrounding the bold leader, of course, are all those faithful followers whose very names remind us of old friends—Little John, Will Scarlett, Friar Tuck and Alan-a-Dale—not to mention Robin's arch-enemy, the High Sheriff of Nottingham, the treacherous Sir Guy of Gisbourne, or the sweet Maid Marian. Enid Bennett makes a most gracious and appealing figure as the Lady Marian Fitzwalter. Her loveliness increases our regret that such sparing use has been made of the closeup throughout the film—almost the sole criticism that can be made of the picture from the standpoint of photographic treatment.

Next to the star himself, Wallace Bery shines forth as an actor of real power in the role of Richard the Lion-Hearted. An honest and believable picture he paints of the crusading king, pompous, gluttonous and at times uncouth—qualities not inseparable from royalty in medieval times, as we know—yet underneath a true man with a tender heart for his friends. Sam de Grasse



ROBIN HOOD

At the command of the usurping Prince John, whom Robin has twitted and taunted and outwitted until the tyrant can endure it no longer, the bold outlaw is made prisoner. Away with him to the dark donjon, until forty crossbowmen shall mete out to him the fate he so richly deserves!

is effective as Prince John, and Paul Dickey as Sir Guy.

Aside from the glamor and romance of the story of Robin Hood, the picture stands as a remarkably faithful delineation of the England of the twelfth century. Neither time, trouble, talent nor money was spared to make the production a strictly accurate historical document, not only as to story, but regarding every detail of the manners, customs, costumes and architecture of the times. An extravagant production it is—one shudders to think of the million it is reported to have cost—but in its very bigness, and in this high ideal of perfection that inspired its making, *ROBIN HOOD* sets up a new landmark in motion-picture history.

The pity of it is that the greatest expense has been involved in the making of reels that, just because they serve

chiefly to supply background and so are deficient in action-interest, will be the first to be sacrificed when the film is cut to a reasonable length for neighborhood showing. At its "world's premiere" in Chicago the picture ran over three hours—thirteen reels. It dragged woe-fully at the beginning—because of the very pageantry that gives it distinction—and the indications are that it will be cut several thousand feet in order to improve its entertainment value.

One point that arouses criticism, from the point of view of one who is considering the reaction of children, is the inclusion of a number of torture scenes characteristic of the period, indeed, but exceedingly gruesome to modern eyes. These, too, will very likely be shortened to inoffensive flashes before the film reaches home neighborhoods.

It is to be hoped that every one who has ever spoken slurringly of motion pictures as being mere tawdry, sensational entertainment, made to cater to the *hoi polloi*, will see this production, and see it in its original edition. It supplies an eloquent counter-charge.

Released by United Artists.

THE PRISONER OF ZENDA

IT SURELY may be safely stated that *THE PRISONER OF ZENDA* is an unusually fine film dramatization of the Anthony Hope novel whose popularity has so long endured. If its subject matter were of different type, it might even be considered a great picture.

The plot is a fanciful romance carrying you into a delightful world where kings and captains, and fair dames and villains, move through picturesque adventures with a continual air of good-breeding. A story like this lacks, of course, that certain note of genuine human interest essential for true greatness. But who cares, when one can escape from a humdrum world into a quaint far-away kingdom and fraternize with the members of an ancient royalty?

Rex Ingram, the director, is able to combine a suavity and polish of detail with force and rapidity of presentation. He is an artist with both a telescopic and a microscopic eye, and he knows the ripe time for dramatic stress. In passing it may be noted that he is following Mr. Griffith's example of employing occasional comic relief.

A fine group of actors has been gathered for the picture. The Bismarck-like Captain Sapt is ideally portrayed by Robert Edeson and is in many ways the dominating figure. Stuart Holmes has never been a more resplendent villain. Ramon Saman-yagos, who has the role of Rupert of Hentzau, displays a Latin type of masculine beauty and an alluring eye that are to be compared particularly with "the only Valentino's" attractions. Alice Terry is beautiful and poised as the Princess Flavia, while Lewis Stone is satisfactory in the double role of the unfortunate king and of the accidental usurper, except for the fact that closeups reveal him as somewhat older than we like our romantic heroes in either film or novel.

The photography deserves special mention. It has a mellowness and a stereoscopic quality that contribute pleasantly to the success of the pic-



THE PRISONER OF ZENDA

One feels that the gracious and lovely Princess Flavia has not yet reached the point where she can say with Tennyson, "Tis better to have loved and lost than never to have loved at all."

ture. The backgrounds, while dignified and impressive, are never allowed to interfere with the action. They are kept where they should be—in the background.

Mr. Ingram is setting himself a high standard in pictures like *THE PRISONER OF ZENDA*.

Released by Metro.

BLOOD AND SAND

THOSE who have read the novel of this name by Ibanez will naturally expect a cinematic production equally forceful and effective. One must remember, however, that beyond doubt this story was selected because of the opportunities it gave to Mr. Rodolph Valentino rather than because of its dramatic possibilities. Moreover, what is called the "frank virility" of its author cannot stand visual transplanting. The treatment of the theme in the novel is too broad for the Anglo-Saxon taste of an American audience. Consequently the picture, while an excellent production, lacks certain characteristics that made the novel great.

The production is staged with the usual care bestowed upon such spectacles. The backgrounds are eminently appropriate, with a somewhat ostentatious accuracy of detail. The scenes in the arena are vivid but not calculated to startle the average audience out of its seats. It is in these scenes that one is glad to miss the realism of the novel.

Press agents declare that never have you seen Valentino until you have seen *BLOOD AND SAND*. In spite of the frightful handicap of such publicity, Valentino proves that he can act. Not only is he able to visualize the swagger, verve and naive conceit of the idolized toreador, but he is also capable of occasional subtleties and finesse of acting.

The supporting cast is all that could be desired. Nita Naldi as Doña Sol flaunts before the startled eyes of the spectator a body that leaves no doubt as to why Juan went astray. She is exotic in the extreme, yet withal convincing. Lila Lee, as the forgotten wife, slips through the picture in a guileless, inoffensive manner.

BLOOD AND SAND will be a highly successful film. It combines the name of a great author with that of a popular star. It has vivid action and resplendent emotionalism that will appeal to many.

Released by Famous Players-Lasky.



BLOOD AND SAND

Wary, tense, alert, the matador watches for exactly the right moment to rush the infuriated bull and deliver the final stroke with a short sword he carries concealed under his gay crimson cloak.

THE ROMANCE OF SILK

SOME there are who can see romance in an industrial exposition, and again there are others who can see only a mere recital of dry facts. There will be few, however, who will not admit, after viewing these two reels produced by Belding Brothers & Company, that the narrative of a picturesque process may correctly be labeled a romance.

Introductory subtitles convey such interesting facts to the optience as that Li-Ling-Chi, an empress of China about the year 2000 B. C., is supposed to have introduced the culture of silk into the country; that the material was at first used only for banners and parasols as a distinction of rank; and that silkworm eggs were brought into the Roman Empire in 560 A. D. From China the industry slowly spread to India, Persia and Arabia and, finally, into Japan, where it has been made an art and carried to a very high state of perfection.

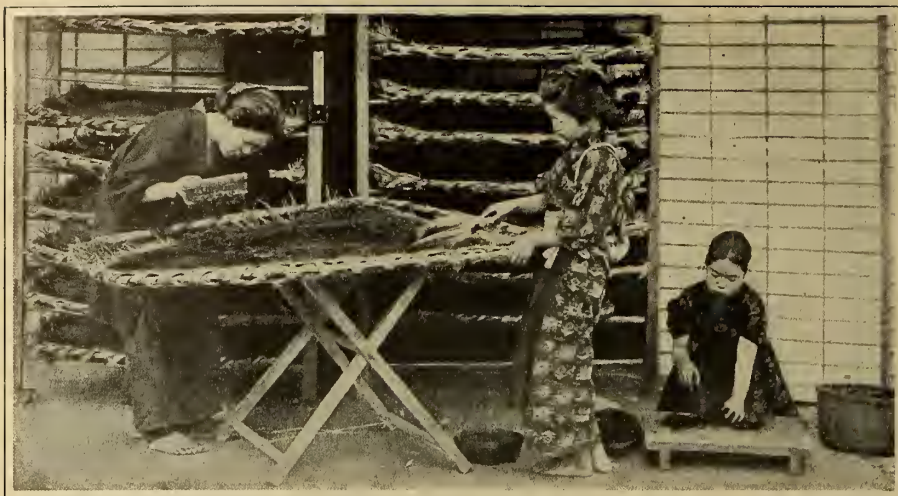
The first reel of *THE ROMANCE OF SILK* pictures the early steps in the creative process as carried on in Japan. First comes the selection of the cocoon for breeding purposes. After the ashy-white moth has emerged from the cocoon the mating takes place. The

female moth is then placed in a numbered individual container, where five hundred eggs or more are soon laid. After a microscopic examination reveals which are the diseased eggs, the healthy ones are spread on hatching racks; here a temperature of 70 degrees is maintained.

The little worm soon makes its debut and is immediately feted with quantities of mulberry leaves. After a month of what one might call intensive feeding, however, the little creature begins to lose its appetite and yearn for seclusion. At this stage of his career, he and his plentiful kindred are sprinkled over bambo sprouts, where they enclose themselves in a silken casing, generally spinning three hundred yards in a day.

Within the cocoon is formed a dark-brown chrysalis all too unconscious of the dreadful fate awaiting him, for at the proper time his little flicker of life is pitilessly baked out of him and his delicate funeral trappings are placed in hot water so that the infinitesimal silk fibers may be softened and wound into a silken skein.

All of the scenes showing the preparation of the raw material were taken in Japanese factories and are carefully hand-colored. The soft pastel shades of the flowing kimonos worn by the picturesque laborers blend artistically



THE ROMANCE OF SILK

Across the seas into a Japanese silk factory. Here we watch an early stage of the feeding and the preparation of the very tenderest of the mulberry leaves for the voracious baby silkworms to feast upon. Every day, it is said, the worm consumes its own weight in leaves.

with the gray and dun backgrounds to form a picture of unusual pictorial as well as informational appeal.

The second reel is concerned with the completion of the long industrial operation as demonstrated in the mills of Belding Brothers & Company at Belding, Michigan. Glimpses of the numerous intricate machines that transform the skeins of raw material into shimmering spools of thread and into yards and yards of gleaming silk are flashed across the screen. The processes visualized in this second reel were evidently photographed some time ago and are not presented with the marked clearness and effectiveness of those in the first reel. The subtitles are not so fully explanatory, and one feels that there has been considerable elimination of important steps in order to compress the material within the footage of one short reel. It is sufficiently clear, however, for one to obtain a very definite idea as to the final steps in this romance of silk.

Altogether, these two reels constitute a film of unusual interest and because of their valuable content and intelligent handling should be considered an addition to any program where a substantial educational film is desired.

Produced by Belding Brothers & Company.

THE LIFE OF COLUMBUS

THE LIFE OF COLUMBUS is a picture of foreign make, begun early in 1914, discontinued for a number of years, and completed but recently. The scenes were photographed at the actual historic spots and the film throughout is an earnest effort to present the complete life of the dis-

coverer in a picturesque and effective manner.

It is always of interest to compare a European photo-drama with our domestic production. Such contemplation is both reassuring and suggestive. It is generally true that pictures coming from foreign studios have a certain distinction, caused perhaps by the mellow influence of centuries of civilization, a richness which Americans have not as yet attained. Moreover, European actors are apt to display more finesse and better technique in their interpretations.

To offset these virtues, however, the photography in many foreign pictures is almost crude—certainly ineffective. The development of the art abroad, as evidenced in *THE LIFE OF COLUMBUS*, bears absolutely no comparison with the delightful perfection attained in this country. And not only is the photography unimpressive, but the directors do not always know how to make the storied spots they use for settings an integral part of the dramatic action. A background can often suggest a mood far more effectively than can the actor himself.

Mechanical defects, however, cannot conceal the charm and the unusual value of such a picture as that which forms the subject of this review. The film does not attempt to offer a well-rounded drama, being instead what might be called historical chronology. Yet where can more dramatic material be found than in the discovery of the New World?

It should be a privilege for Americans, notoriously uninformed concerning the past, to see such a drama enacted upon the very places where, centuries ago, the real drama occurred. The streets of Lisbon, the waters of

the Mediterranean, the romantic courts of the Alhambra, old Roman bridges and roads, the dreary monastery of La Rabida, are presented in views that cannot but add to one's culture and intellectual equipment. And because they are genuine, they satisfy even if poor photography has been unkind to them.

One of the most pleasing things about the film is its fidelity to historical fact. All of the events pictured were actual occurrences, and never once has truth been sacrificed for effect. The pictorial account is very detailed: Columbus, the child of Genoa, gazing at the sea, his imagination carrying him far out upon the cloud-shadowed waves; Columbus, the youthful cabin-boy, already cherishing his dreams; Columbus, the adventurer; Columbus growing old and discouraged; and finally Columbus, the successful discoverer, triumphing over every obstacle and claiming a new world for his sovereigns of Castile and Aragon—all these events are pictured against the colorful background of a Spain of the middle ages.

This is the kind of film for which educators and those alive to the future of the motion picture have been sighing. After seeing this picture, no one can fail to have a vivid and comprehensive idea of this epoch-making lifetime of adventure and pioneering. Textbooks may recite the facts, but they will never imprint them upon the memory and imagination as does this picture, despite its obvious faults. More power to its producers!

Produced by the Crusader Film Company.

THE BALLAD OF FISHER'S BOARDING HOUSE

KIPLING'S powerful poem done into one reel of pictures, with praiseworthy regard for literary and artistic values. The verses supply matchless titling, and the cast was chosen with a keen eye for types. Masterpieces all are the portrayals of the rough sailors of the waterfront saloon, of Hans the Dane with his "little silver crucifix that keeps a man from harm," and of Anne of Austria, whose finding of the tiny cross on Hans' dead body begins her regeneration. A vital and highly interesting production—a real joy to Kipling lovers. Half the audience may have only the faintest glimmer of what it's all about, but none can fail to be impressed.

Released by Pathe.



Keeping Abreast of the Screen

Brief comments on current films for the
special information of parents and teachers

The Cowboy and the Lady

Mary Miles Minter doing surprisingly good work, with the popular Tom Moore in support, in Clyde Fitch's well-known play. Western scenery, story, direction and acting all combine to make this an enjoyable little film—not one of the "big pictures" of the month, but more than just fair entertainment. The children always enjoy little Miss Minter, and her pictures can always be depended upon as clean and wholesome. (*Famous Players-Lasky.*)

The Face in the Fog

It doesn't make much difference about the face in the fog so long as the chief face in the picture is that of Lionel Barrymore. His ability makes the Blackie Dawson role of reformed gentleman crook seem the most natural thing in the world, even when it is mixed up with Bolsheviks, Russian nobility and other impediments of the former Russian regime. It is a pity that the intended "diamond mystery" is spoiled for the optience by being given away a dozen times at the start. Not recommended for children, because of its blood-and-thunder material. (*Famous Players-Lasky.*)

The Fast Mail

Dripping with melodrama and yet sufficiently interesting, if you are prepared for an unbroken succession of breath-taking thrills and stunts strung on the slenderest thread of plot. It is the old Lincoln J. Carter melodrama to the life. As one mother remarked: "My Bobbie loved it. He told me later that it had all the exciting things he had ever seen in a movie, all rolled into one." Where a child is kept away from serials because of the unwholesome excitement they provoke, he would better be kept away from this picture; otherwise there is nothing really harmful in its content. (*Fox.*)

A Fool There Was

An absolutely unnecessary picture from every angle—unwholesome, uninteresting, unconvincing. The only praiseworthy thing about it, apart from its sets and photography, is the

splendid acting done by Lewis Stone as the infatuated fool. Why Fox should have voted it good business to put out this second picturization of Kipling's celebrated vampire poem is a deep, dark mystery, since present-day optiences have on the whole little liking for films of this type. Every reason for young and old to pass by on the other side. (*Fox.*)

Head-Hunters of the South Seas

Another trip with Martin Johnson into savage wilds, but lacking somehow the convincing quality of his earlier production. The pictures do not always succeed in supporting the titles, and there is a sense of scrappiness and disconnectedness about the whole that does not make for absorbed interest. There are some rather gruesome scenes—chiefly the preparing and parading of the heads of victims to the natives' passion for collecting souvenirs—that will hardly win the approval of those who are particular about the films seen by imaginative children. (*Universal.*)

Her Gilded Cage

If one were catty, one might remark that it would be a blessing if Gloria Swanson were to stay securely locked in her cage. She should not be on the screen. She has the same hard, wooden expression for death or for dinner. No picture can be really fine when it is built for the purpose of exploiting a human clothes-rack. Not for junior fans. (*Famous Players-Lasky.*)

Human Hearts

Bristling with hokum, but well acted and likely to command as much popularity as the well-known melodrama from which the film is drawn. The picture has that same quality of "folksiness" which has kept the stage play making the rounds for lo, these many years. House Peters is excellent in the role of the fine-fibered blacksmith hero. There are certain elements in the plot which do not belong in a children's picture, but they are not "rubbed in" and the general tone is entirely wholesome. A film of this sort goes a long way to meet the public's demand for clean pictures. (*Universal.*)

If You Believe It, It's So

This picture greatly delighted its audience, largely because the well-known Theodore Roberts appeared with a flowing beard and a new line of hokum. When you know that the film presents nice Thomas Meighan as a reformed crook in a small town, you have the big idea. Some people might feel that the picture treated serious matters too lightly. Others might not recognize the matters as serious at all. And the title? It's all in what you believe. On the whole, O. K. for the younger element. (*Famous Players-Lasky.*)

Just Tony

Just the sort of picture children "eat alive" and talk about for weeks after. Grownups, too, enjoy it for its utter wholesomeness and unhackneyed theme. The star is a horse, leader of a band of wild mustangs, and the master he adopts—the straight-shooting, hard-riding Tom Mix—takes only second place in stellar honors. The western settings are a delight to the eye. In every way a "better picture" and a wise selection for family night at the movies. (*Fox.*)

The Loves of Pharaoh

One of those highly spectacular costume plays, imported from Germany, which evoke admiration for their colorful settings, well-drilled mobs and striking mass effects, but never manage to tug at your sympathies. This is another Lubitsch production, with Emil Jannings supplying a remarkably fine performance as the Egyptian monarch. The results of strenuous censoring are plainly visible, for the plot does not develop, but progresses by leaps and bounds. The appropriateness of the title's plural noun was not demonstrated in the film viewed. (*Famous Players-Lasky.*)

Nanook of the North

A decidedly worth-while film—a rare combination of entertainment, instruction and photographic realism and artistry. This is no fiction tale, but the stark, everyday reality of the life of an Eskimo family in the region known as Hopewell Sound, Northern Ungava. No more eloquent sermon on self-reliance, industry and contentment was ever preached than this photographic story of Nanook; he is a new type to us of the "good provider." A picture that Johnny, Mary and all their grownup relatives should see at least once. (*Pathe.*)

Nice People

A faithful translation of Rachel Crothers' play, with its scandalous picture of ultra-modern life in high society. Bebe Daniels is well cast as the reck-

less, cigaret-smoking, jazzing "flapper" heroine. Wallace Reid has done better things than his impersonation of the earnest young farmer who wins her over to a wholesome life of work and the out-of-doors — though, goodness knows, his almost emaciated appearance and languid movements constitute a sorry enough advertisement for the rural environment. No conscientious parent would O. K. this film for young girls—or lads, either. (*Famous Players-Lasky.*)

Pink Gods

An excellent picture made from Cynthia Stockley's compelling novel, "Pink Gods and Blue Demons," with its scenes laid in the diamond mines of South Africa. The story develops the theme that woman's craving for diamonds is as great a vice as the craving for drugs. Story and atmosphere are tremendously interesting, with numerous novel features, and the actors rise to the occasion splendidly. The fine cast includes James Kirkwood, Bebe Daniels, Anna Q. Nilsson and Raymond Hatton. The plot, not the treatment, makes the picture unsuitable for children's viewing. (*Famous Players-Lasky.*)

The Sign of the Rose

A film transcript of George Beban's famous vaudeville sketch. The pathos has been spread a bit thick in spots, but the picture sums up as thoroughly wholesome, interesting and well acted. George Beban has no equal on the screen in the interpretation of Italian roles. This is a "good buy" for the children, and particularly appropriate for the holiday season because of its Christmas atmosphere. (*American Releasing Corporation.*)

Smudge

Not a typical Charles Ray production, either in story or quality. The plot has elements of novelty, but the difficulty seems to be that it was stretched to five-reel length; it would have made a snappy three-reeler. The title reference is to the use of smudge pots in the orange groves of southern California as a protection against frost. Recommended for the juniors. (*First National.*)

The Song of the Lark

A pastoral fantasy and allegory, abounding in lovely outdoor photography, and weaving into its slender story such things as Jules Breton and the incident which inspired his famous painting; Franz Schubert composing his great lyric, "Hark, Hark, the Lark"; and a girl struggling against her strong-willed lover to retain for herself

the freedom of thought and action of which the uncaged lark is to her a symbol. There is a certain stiffness about some of the acting, as if a few amateurs had been drafted into the cast. Schools will find this a particularly usable subject. (*Pathe.*)

The Storm

An excellently handled film version of the popular play. The much-advertised forest fire, while it stands out in memory as a distinct addition to the screen's gallery of spectacular scenes, does not grip the student of drama more than or as much as the skill with which those two fine actors—House Peters and Matt Moore—portray the storm raging in the hearts of the rivals as the strange snow-bound courtship reaches its stirring climax. This picture is real cinematic art. No reason for withholding it from boys and girls, even though its best points will doubtless prove beyond their powers of appreciation. (*Universal.*)

Under Two Flags

A disappointment to those who have loved the Ouida story and seen one of the world's great legitimate actresses in the role of Cigarette. Priscilla Dean, though full of dash and "go," is too husky to fit our ideal conception of the petite vivandière, and much charm and illusion are thereby lost to her screen characterization. Neither is she well directed throughout; in the death scene, for instance, she might be expiring of a crick in the neck, for all she varies from her perfectly upright posture. There are many deviations from the original story, and several major incidents in the plot are not carefully built up. Nevertheless, the film abounds in spectacular action and interesting Oriental atmos-

phere, and offers good entertainment to any one who does not seriously object to having his classics tampered with. (*Universal.*)

The Valley of Silent Men

A picture of amazing scenic beauty. The mountains of the Northwest provide an epic background against which little human figures move somewhat futilely in a typical story of the Canadian Mounted Police. A strain of mystery injected early into the plot is lost in a rather unskilled treatment, marked by frequent inconsistencies. The picture will afford boys and girls a wonderful geography lesson on the Rockies. (*Famous Players-Lasky.*)

When Knighthood Was in Flower

Delightfully mounted, and effective and interesting despite woeful miscasting in several of the important male roles. Forrest Stanley as Charles Brandon is not in the least the suave, graceful courtier of Charles Major's beloved novel and your own fond imagination; also, you find his permanent wave decidedly out of the picture. Lyn Harding contributes an excellent piece of acting as Henry VIII, although not reaching the standard of Jannings in "Deception." Marion Davies follows very closely Major's character drawing of Mary Tudor, giving better satisfaction than in any of her previous pictures. A critic would cavil at the way in which the tournament is handled; to one familiar with the elaborate etiquette that governed such affairs, the filmed tourney commits numerous *faux pas*. The Joseph Urban settings, however, and the joy of having this favorite tale in screen form are sufficient to make up for many imperfections. (*Famous Players-Lasky.*)

Church Co-operation for Community Movies

GRAND RAPIDS, Michigan, announces new and enlarged plans for reaching the largest possible clientele by way of its churches. The HERALD says:

"Churches operating on a community program are now contemplating the arrangement of their schedules for the winter campaign. Trinity Church on Lake Drive has secured what will probably be the greatest showing of worth-while motion-picture films ever exhibited in community church history throughout the nation. Val-

ley Avenue Church this year will enter whole-heartedly into the community work, and with its fine equipment is planning a seven-day program for every week of the winter months."

By effecting a combination with the schools and local business men's associations, whole communities can be reached at a minimum cost with a mass of common knowledge which alone can make possible larger and more permanent community development.

Visual Education and the Project Plan

(Continued from page 350)

the case. The reason is that these are real problems. The figures mean something definite to boys and girls, because they deal with things that enter into our everyday life, with matters that have been brought close to the children through the project on which they have been working. After the first week or two the pupils begin to construct their own problems, and long before the end of the project month they are working problems of their own devising exclusively."

Gaining Parent and Teacher Interest

The teachers who are co-operating in making a success of the project plan are not only delighted with the quickened interest, alertness and intelligence of their pupils, but enthusiastic over their own opportunity for professional growth. "I have never had to work so hard before to meet the demands of my classes," said a teacher of long experience who came to Cicero last year to take charge of a fourth-grade room, "but, on the other hand, I have never before enjoyed my teaching so keenly nor felt I was gaining so much from the day's work."

Even more gratifying to the superintendent and his associates is the way in which the plan links the school with the home. "What is this new work you are having down there?" asked the father of a fourth-grader. "Our Robert never seems anxious to stay home from school any more, nor to quit as soon as the bell rings."

In March, when the fourth grade was developing its project on "Farm Life," the supervisor expressed his admiration of an attractive little wooden barn, neatly made and painted, which one of the girls had contributed to the table. "Did you make that, Marie?"

he asked. "Oh, no, sir! My papa made it. He wanted to!" she added, quickly, as if to assure the supervisor that no filial compulsion had been exerted.

Another little girl brought in a boat, the hull and masts of which had been carved out by her big brother while she cut and hemmed the sails. At a recent Board meeting, the members were escorted to the room where the current fifth-grade project—"Life of the Fur Traders"—was on view. "Oh, ho! so that's where my fur glove went!" exclaimed one man, seeing a square of beaver stretched on a miniature drying rack outside a tiny long cabin. And that his sincere interest had been won was clear from the way in which he registered pride in the initiative of his daughter, instead of annoyance over the mutilation of his driving glove.

Varied and Valuable Results

As set forth in a recent bulletin issued by the Cicero schools, here are some definite and direct results which Superintendent Lewton claims from the use of correlated project work as a means of leading the child "from interests to interest":

Greater freedom in the schoolroom.
Increased facility in language, oral and written.

Motive created for wide reading—"looking up."

Development of better habits of study.
A flexible program made necessary.

Interested co-operation of the home enlisted.

Provision made for every degree of ability or capacity, and for every type of mind.

Pupils enabled to gain more knowledge, receive more training, and develop greater power.

An estimated gain of 50 to 100 per cent in schoolroom efficiency.

It is evident to the observer that these boys and girls are being

trained to examine, discriminate, reject, select and form judgments in line with set, definite purposes; that they are THINKING for themselves; that they are developing initiative and a sense of responsibility, for to a large extent their activities are of their own choosing and directing; that they are gaining, in the schoolroom as well as on the playground, group consciousness and an awareness of the practical values in co-operative effort.

A Schoolroom Democracy

The purpose of the school being to educate boys and girls to be worthy citizens of a great democracy, every classroom is looked upon in the light of a little democracy, and pupils are allowed the utmost freedom consistent with good order.

"Our aim is to give them all the freedom necessary," says the supervisor, "but at the same time to hold before them at all times the idea of self-control. After all, that is the foundation of a successful democracy. The individual citizen must be able to control himself if the community is going to control itself. We hold that we cannot develop self-control in an atmosphere of repression. If our plan of project correlation accomplished nothing else than this increased liberty, with the free and voluntary discipline that comes where all are imbued with a common purpose and co-operating in the performance of a common task, we should feel that it was abundantly justifying our faith that the project method, intelligently applied, can contribute in a big way to the power and breadth of our educational system."

Visualized Study

(Continued from page 357)

tion, both from the standpoint of knowledge gained and intellectual power acquired. Every conceivable mental activity was brought into play in accumulating, organizing and constructing the visual exemplification of the results.

Chart 7. The picture shows a student delivering his thesis before his classmates as auditors. The charts from which he is speaking represent the main divisions of his theme—"Corn Growing." They are part of the results of his research. Some of them are copied and adapted from texts and bulletins relating to the theme under investigation. Some of them are original inventions. In this particular instance the student occupied something over an hour in the presentation of his thesis.

Educational Factors Involved

On the basis of the foregoing exposition, a few statements are offered:

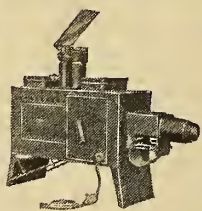
First, the task of choosing a problem makes for interest and industry in its solution. *Second*, orderly procedure in the solution of the problem makes for systematic work. *Third*, wide reading and much note-taking make for a comprehensive view of the subject. *Fourth*, organizing the notes into the finished outline makes for an-

alytical and synthetic thinking as well as a clear comprehension of the problem. *Fifth*, writing a thesis on the basis of a detailed outline makes for logical order in discussion, accuracy in statements, completeness in detail, and definiteness of progress from beginning to end. *Sixth*, the production of charts which must accompany the outline makes for fullness of detailed knowledge, also clearness of understanding as to the bearing of individual facts and groups of facts upon one another and upon the theme as a whole; furthermore, it requires the student to look at the subject from the standpoint of auditor as well as speaker. *Seventh*, the offhand, free delivery of a discussion from these charts makes for independence, self-assurance and self-control in discussion. *Eighth*, the composite effect of this entire series of activities—searching for sources, accumulating material, organizing material into outline and chart form, and the final presentation—all make for independent action in self-directed study,

and in increased power to attack a new problem with confidence in one's ability to prosecute it to a successful conclusion.

In conclusion, it may be said that visual methods of study impose a few burdens. These, however, are such a mixture of physical and mental activities that they do not become wearisome because the interchange between them occurs frequently and naturally. On the other hand, the outcomes of visual methods of study are of such high value as to more than counterbalance the burdens assumed in carrying on the process. These outcomes have been hinted at above. They consist primarily in the accuracy and amount of knowledge acquired and in the intellectual power gained for the mastery of new knowledge.

The demand at the Toledo Public Library for books dealing with current movies is a reflection of the power of the motion picture as an educational force today, in the opinion of Miss Jessie Wells, assistant librarian. The call for books on Disraeli following the showing of the picture at a local theater necessitated the arrangement of a special shelf dealing with the great English prime minister and his times. The calls for Mark Twain's "A Connecticut Yankee in King Arthur's Court" and Dumas' "The Three Musketeers" still exceed the demand, although it is many months since the pictures appeared. No particular type of person is following the better type of movies by the reading of allied literature; the requests come from readers of all classes and ages.



POST CARD PROJECTION

also

Pictures, Reading Matter and Lantern Slides

SPENCER DELINEASCOPE MODEL 3

Possesses many new and original features. Transposing device for handling the lantern slides. Dissolving view on the screen with but **one** outfit—not **two** as in others. It is a perfect Stereopticon, right up to the minute.

Catalogue K-16 describes it.

SPENCER LENS COMPANY
BUFFALO, N. Y.

MOTION PICTURE USERS

Schools, Churches, Institutions, Manufacturers and other non-theatrical users, contemplating the purchase of motion picture machines and films, should obtain a booklet of valuable information which is supplied without cost by

The Associated Manufacturers of Safety Standard Films and Projectors, Inc.
Suite 1419, 440 4th Ave., New York City



SALES DEMONSTRATION



DRAMATIC PRODUCTION

Silent Super-Salesmen (Moving Pictures)

FILMS, used in conjunction with the portable projector or by the dealer in his local theatres, have become an important factor in the most enterprising and successful Sales and Advertising organizations.

The Industrial Film Division

— of the —

Society for Visual Education

Specializes in the production of high-class films for

Sales Promotion
Advertising

Propaganda
Welfare

Instructional Purposes

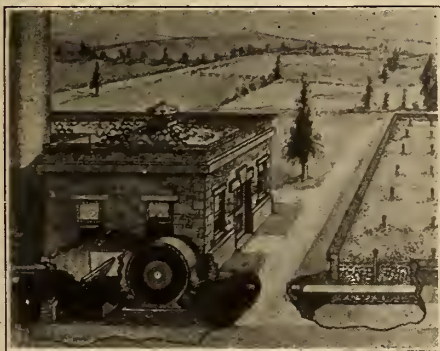
Excellence of production guaranteed, with no obligation entailed until your film has been screened and approved.

We offer a guaranteed non-theatrical national circulation for films of our own production. Surveys made and estimates submitted without charge.

Address inquiries to

Industrial Film Division
SOCIETY FOR VISUAL EDUCATION, Inc.

806 W. Washington Blvd., Chicago



TECHNICAL ANIMATED DRAWINGS



"SAFETY FIRST" PROPAGANDA



The Film Field

IN OFFERING these selections VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from the data given out by the producing companies. In general, films should be viewed by qualified judges before being shown to school children. All entries are one reel in length unless otherwise specified. The producer is indicated by the letter *p* following the sketch, the distributor by the letter *d*. For addresses consult list in this issue.

AGRICULTURE

SPRING VALLEY. This is a Farm Bureau drama with eight leading characters, portraying the production and marketing problems of farm folk, and bringing out the work and value of the County Farm Bureau and the state and national organization. 5 reels. (*p* and *d*, Homestead Films.)

OUR DAILY BREAD. Visualizing the evolution of our wheat industry. The film shows the development of the means of harvesting, threshing, milling and baking, beginning in each case with the primitive and concluding with the most modern apparatus in use. (*p* and *d*, Gen. Elec. Co.)

EXIT ASCARIS. Methods of controlling roundworms in pigs, which annually cause heavy losses among swine; sanitation rules worked out by laboratory investigation and applied successfully under Corn Belt conditions. A number of microscopic scenes are included in the film. 2 reels. (*p* and *d*, U. S. Dept. of Agric.)

DAIRY MANAGEMENT. Portrays the dairyman's life—feeding and milking cows—weighing milk—the milk station—the silo—the farm buildings—sanitary stables—water supply—machinery—importance of raising young stock, and all that is involved in the important phases of this agricultural pursuit. 2 reels. (*p* and *d*, Soc. for Visual Edu.)

LAYERS AND LIARS. The "historic hen" brings a new rug to Mrs. Little's home and unites two communities in a work worth-while; culling and other good poultry practices as explained by extension workers; community canning of the culls. (*p*, U. S. Dept. of Agric.; *d*, Homestead Films.)

GEOGRAPHY

UNDER THE GREAT STONE FACE. Tramping to points of interest in the White Mountain National Forest, N. H., including the famous "Old man of the mountains." (*p* and *d*, U. S. Dept. of Agric.)

THE CAPE OF GOOD HOPE. Besides the usual pictorial appeal contained in the Prizma natural-color pictures, this film has an added interest in that it deals with the place which Cecil John Rhodes, British-South African administrator and statesman, established and made one of the important colonial possessions of the British empire. The reel includes some beautiful shots of the bay, glimpses of the city, and picturesque views of the Rhodes home, which he bequeathed as a residence for the Governors of South Africa. (*p* and *d*, Prizma.)

EGYPT. Kineto Review 107. An informal pictorial jaunt through this land of the past. Primitive irrigation methods, modern engineering, examples of native industry, and a funeral procession are among the many things that contribute interest and variety to the reel. (*p* and *d*, Kineto Co. of Amer.)

NEW ENGLAND STATES. These reels illustrate the distinctive physical features of New England, and their relation to the industrial and commercial activities of the region. Maine's rock-bound coast, Boston Harbor, the Berkshires, the valley of the Connecticut, Lake Champlain, etc., are shown. The screen visualizes typical cities like Boston, Fall River, Hartford, Providence; typical industries like lumbering, quarrying, pasturing sheep and cattle, shipping apples, fishing, lobster-catching, etc.; typical historic spots like Lexington and Concord, Plymouth Rock and Pilgrim's Monument. 2 reels. (*p* and *d*, Soc. for Visual Edu.)

AROUND THE WORLD WITH BURTON HOLMES. A 12-reel series of travel films, taking in the following itinerary: New York, England, France, Belgium, Italy, Turkey, Egypt, The Holy Land, Java, Siam, the Philippines, Japan, and back to the U. S. A. Presented with the well-known Holmes genius for human interest and artistic photography. 12 reels. (*p*, Burton Holmes; *d*, Nat'l Non-Theat.)

HEALTH AND HYGIENE

WINNING HER WAY. Devoted to Public Health Nursing and written by Margaret Mayo, the well-known playwright, who has woven an interesting story around the technically correct methods of public health nursing. Communities in which this picture is shown will appreciate the value of the public health nurse. 2 reels. (*p*, Amer. Red Cross; *d*, Soc. for Visual Edu.)

SIR LACTEUS, THE GOOD MILK KNIGHT. A little girl, averse to drinking milk, dreams she is kidnapped by Sir Disease. Her parents appeal to Sir Lacteus, who, aided by his cohorts—Sirs Fat, Sugar, Lime, Protein, and Vitamine—defeat Sir Disease's men and rescue the child. Through this fanciful story the food value of milk is emphasized. The picture is available only for showing to children. 2 reels. (*p* and *d*, U. S. Dept. of Agric.)

FOOD FOR REFLECTION. The need for hot school lunches in the school at Pleasant View, and how the women of the community raised money to buy and instal the necessary equipment. The operation of the hot school lunch and its beneficial results to the school children; weighing and measuring demonstrations, with the conclusion that "children are the best crop the farm produces." 2 reels. (*p*, U. S. Dept. of Agric.; *d*, Homestead Films.)

HEALTH CAMPAIGNS IN CHINA. During the cholera epidemic of 1919, fifty thousand lives were lost in Foochow alone. Aided by the Governor, his staff, and Dr. Peter, Director of the Public Health in China, a vigorous campaign was organized to prevent further outbreaks of the disease. The picture visualizes many of the activities of the campaign. One effective activity was the training of five hundred members of the Junior Red Cross in health propaganda work. (*p*, Amer. Red Cross; *d*, Soc. for Visual Edu.)

HISTORY AND CIVICS

MY MOTHER. ("Son of Democracy" series, Chapter 1.) Intimate glimpses of the boyhood of Abraham Lincoln, including incidents that bring out the careful training he received from his mother until the day of her death. 2 reels. (*p*, Benjamin Chapin; *d*, Com. M. P. Service.)

ENGLISH SETTLEMENTS IN NORTH AMERICA. On an animated map the first English settlements are visualized. Scenics add concreteness. As Dutch and Swedish settlements are absorbed, the original names fade out and give place to New York, Albany and Wilmington. The screen pictures the substantial homes and mills that were built, and a contrast is developed between the colonizing of the English and the mere exploration of the French. The Appalachian barrier is pictured, and the map traces the one easy pathway to the west, showing how the French blocked the way. Thus a background is prepared for the third reel of the series, "The Struggle Between French and English for North America." (*p* and *d*, Soc. for Visual Edu.)

DANIEL WEBSTER. One of the reels in the "Great American Statesmen" series, picturing Salisbury, N. H., the birthplace of Webster and scenes bearing on his life, achievements and influence on history and mankind. (*p*, Kineto Co. of Amer.; *d*, Hodkinson.)

HOME ECONOMICS

THE HOME DEMONSTRATION AGENT. Her work with women and girls and its effect on the whole community, but particularly upon Mrs. Meade and her daughter Mabel; the new agent's arrival; how she organizes the county and demonstrates home conveniences; the girls' canning club; the egg circle; the community kitchen; the county encampment and picnic; the exhibit of club work at the county fair; Mabel finally wins first prize, a trip to the college short course; activities at the short course; several years later, Mabel a homemaker. 3 reels. (*p*, U. S. Dept. of Agric.; *d*, Homestead Films.)

MRS. BROWN VERSUS THE HIGH COST OF LIVING. The story of how one woman made her household budget cover every day's requirements is briskly and humorously shown in this film. Enlivened by tricks of the camera, Mrs. Brown's animated "vegetable dream" shows approved foods parading across the screen. Suggestions regarding food selection and preparation endorsed by leading home economists make this reel as practical as it is pleasing. (*p*, Amer. Red Cross; *d*, Soc. for Visual Edu.)

JUST FINISHED!

A new set of

Stereoscopic Pictures and Lantern Slides on Natural History

These life-like pictures, far superior to ordinary photographs, are a splendid help in giving Visual Instruction. Complete descriptive label accompanies each stereograph, printed directly on the back.

Sample collection and complete list on request.

H. LUSCHE

434 N. Parkside Ave.

Chicago, Ill.

HOW IT IS DONE

CUBA—THE ISLAND OF SUGAR. Produced by permission of the Cuban Government. Shows the world's greatest achievement in the cane sugar industry. We see how 110,000 acres of dense forest were transformed into a modern plantation, and the largest sugar mill in the world built and put in operation in ten months. The film also shows many beautiful scenes in and around Havana, including the home and gardens of the President of the Republic. 2 reels. (p, and d, Gen. Elec. Co.)

THE KLONDIKE TODAY. Hut of Robert Service at Dawson; ripping up floors of dance-halls for gold dust; working a placer claim in the old days; miners gleaming for gold; modern dredge; steam plant for thawing ground; Indian wife of first man who discovered gold in Klondike; pay dirt sluiced through flume; washing away hillsides with water; making honest gold bricks. (p, Burton Holmes; d, Nat'l Non-Theat.)

THE OYSTER'S RIVAL. Pathe Review. No. 146. Picturing the manufacture of pearls, which has always been more or less of a mystery to the world. Superheated glass is first spun onto fine wires, and then the wires are burned out of the glass beads by nitric acid. The beads are next sprayed with celluloid enamel, followed by a bath in gelatin. A final bath in prepared fish-scales is the next step, after which the beads are dried and polished. They are then ready for matching and stringing. (p and d, Pathe.)

LITERATURE

DAYBREAK. A charmingly artistic picturization of Longfellow's loved poem, beginning: "A wind came up out of the sea, And said, 'O mists, make room for me!'" The couplets furnish the titles. (p and d, Pathe)

THE LAST OF THE MOHICANS. A wonderfully fine filming of Cooper's great novel, with all-star cast. 6 reels. (p and d, First National)

ALI BABA AND THE FORTY THIEVES. One of the old Arabian Nights tales, effectively pictured. 5 reels. (p and d, Fox)

VICAR OF WAKEFIELD. A seven-reel visualization of Goldsmith's novel of English rural life. (p and d, Pathe.)

NATURE STUDY AND OTHER SCIENCES

ANTS: NATURE'S CRAFTSMEN. A fascinating micro-cinematographic study of ants and their community life. It deals with a careful analysis of the structure of the queens, males and workers. Very instructive pictures of mounds and ant-hills; thousands of workers at work; the story of hatching; the "nurse" ministering to new-born ants; attacks upon enemies; feeding habits, defense of their homes, etc. (p and d, Pathe.)

INHABITANTS OF A HEDGEROW. The musk beetle, day-flying Burnet moth, satin moth, thick-horned plant bug, volucella, a

harmless fly; crab-spider, thistle bug, a "false scorpion"; young frog-hopper, harvest mites, Trombidium and the short-legged Trombidium, are all members of families which live in the hedgerow. (p, Prof. F. P. Smith; d, Kineto Co. of Amer.)

SAMIA CECROPIA, the GIANT AMERICAN SILKWORM. Pictures the complete life-cycle of the moth. We see the eggs photographed through a microscope, as the tiny black caterpillars eat their way through the shell. All four stages of the larva's development are shown. We see the caterpillar pulling leaves about it to conceal its movements, then fastening guy-ropes and spinning the cocoon. The cocoon is cut open to show us the warm, closely woven inner lining. Interesting closeups enable us to watch the complete process as the mature moth forces its way out of the cocoon. (p and d, Soc. for Visual Edu.)

THE ALPHABETICAL ZOO. An interesting ramble through the zoo, showing the various animals in their native haunts in alphabetical order. (p Chas. Urban; d, Vitagraph)

REPTILES—PART 1. A 600-foot reel depicting the life and habits of the fresh-water snapping turtle, giant Galapagos Island tortoise 400 years old, and the fresh-water tortoise, as much at home on solid ground as in the water. (d, Beseler)

NEWS REELS AND REVIEWS

PATHE REVIEW No. 158. "At Home With the Seals," showing stirring scenes in a rookery off the coast of Lower California; "White Winter Days," presenting woodland and kiddie studies on a clear wintry morning; "Summer-Time in Greenland," with the Eskimos living in turf houses and tents of sealskin; "The Glories of Oporto," a Pathe-color travelogue through Portugal's second largest city, on the river Douro. (p and d, Pathe)

INTERNATIONAL NEWS No. 80. The most spectacular plays of the first baseball game of the World series are contained in this release, together with views of the crowd and of notable personages who attended the game. In addition, there are pictures of the Mohammedan festival of Atonement, taken at Lucknow, India; views of the spectacular tryout when giant torpedo planes attacked the Atlantic Fleet off the Virginia Capes, and many interesting glimpses of people prominent in the news of the day. (p and d, Universal)

RECREATIONAL

COME OUT OF THE KITCHEN. A pleasant feature starring Marguerite Clark. The charming little actress will be found very attractive in this domestic comedy-drama. Romantic and humorous in its situations and entirely wholesome screen fare. 5 reels. (p and d, Famous Players-Lasky)

THE HELL-DIGGERS. Wallace Reid plays the part of a construction engineer who, after inventing a dredge or "hell-digger," discovers that his new machine is the cause of

the deterioration of the fertile valley into a desert, much to the dismay of the farmers. He then invents a dredging machine which restores the soil and finally wins the co-operation of the dredging company. 5 reels. (p and d, Famous Players-Lasky)

MUTTS. No human being is seen in this skit, but there are something like threescore dogs of every conceivable breed which cavort through its footage. Brownie, the Century Wonder Dog, does much to justify his title, not the least of his achievements being to throw a lady dog out of the dance-hall and deposit her in the ash-can, when she persists in doing a two-footed "whirl" on the floor. 2 reels. (p and d, Universal)

RELIGIOUS AND INSPIRATIONAL

ABRAHAM. One of a series of Bible films, picturing the marriage of Abraham and Sarai, their departure from Ur, etc. Biblical quotations furnish the titles. The film is beautifully photographed and reverently developed. (p, Sacred Films, Inc.; d, State Rights.)

SOLOMON'S TEMPLE. Views of the site of the ancient temple, now occupied by the beautiful Mosque of Omar. With the aid of movable models of the old Jerusalem, there are illustrated the many changes from the tented Tabernacle to the Temple of Solomon. (p, Burton Holmes; d, Nat'l Non-Theat.)

THE GARDEN OF GETHSEMANE. An attractive colored film, showing the Mount of Olives; Bethany, where Lazarus was raised from the dead; the home of Simon the leper; the Garden of Gethsemane; a fig tree which was growing when Christ walked these hills; and an old monk in charge of Garden Gate, through which the triumphant Palm Sunday entry into Jerusalem was made. (p, Prizma; d, State Rights.)

VOCATIONAL TRAINING

THE ENGINE LATHE AND ITS OPERATION. Workmen are shown assembling a lathe, showing clearly its principal parts. The lathe is prepared for operation: oiling, starting, stopping, reversing, countershaft operation, etc. Other points pictured are machining a shaft on centers; care of the spindle; diagrammatic study of twelve of the most practical lathe tools; thread-cutting; machining a pulley and a pair of lathe centers; important lathe jobs, together with knurling in the lathe, turning taper by setting over tailstock, and special manufacturing jobs done on a lathe. A real course of training, to supplement shop instruction on the lathe. 7 reels. (p and d, Soc. for Visual Edu.)

FROM WOOL TO CLOTH. Wool sorted and weighed at warehouse. Buyers purchasing wool from sample clips. Lowell Textile School. Wool sorted by hand and cleaned and washed by machinery, carded and wound by machines, twisted into yarn of various grades, then woven into cloth. The fifteen processes of shrinking, singeing, etc. through which the cloth passes after weaving are shown in detail. 2 reels. (p and d, U. S. Dept of Agric.)

Where to Book These Films

ONLY producers and exchanges whose films are included in this month's instalment of "The Film Field" will be found listed here. Principal offices only are given, on account of space limitations, although the larger film companies maintain a great many branch offices. Inquire location of nearest branch when writing to main office.

Associated First National Pictures, Inc., 8 W. 48th St., New York City.
Beseler Educational Film Co., Inc., 71 W. 23d St., New York City.
Community Motion Picture Service, Inc., 46 W. 24th St., New York City.
Famous Players-Lasky Corporation, 485—5th Ave., New York City.
Fox Film Corporation, 10th Ave. and 55th St., New York City.
General Electric Company, Schenectady, N. Y.
W. W. Hodkinson Corporation 469—5th Ave., New York City.
Homestead Films, Inc., 7510 N. Ashland Ave., Chicago.
Kineto Company of America, Inc., 71 W. 23d St., New York City.
National Non-Theatrical Motion Pictures, Inc., 232 W. 38th St., New York City.
Pathe Exchange, Inc., 1600 Broadway, New York City.
Prizma, Inc., 110 W. 40th St., New York City.
Sacred Films, Inc., Burbank, Calif.
Society for Visual Education, 806 W. Washington Blvd., Chicago.
State Rights—Write producer for name of local distributor.
U. S. Department of Agriculture, Washington, D. C.
Universal Film Mfg. Company, 1600 Broadway, New York City.
Vitagraph, Inc., E. 15th St. and Locust Ave., Brooklyn, N. Y.

Correct English—How to use it
JOSEPHINE TURCK BAKER, Editor
A Monthly Magazine—\$2.50 The Year
Send 10 Cents for Sample Copy to
Correct English Publishing Company
Evanston, Illinois

Edeson Radio Phones

Adjustable Diaphragm Clearance

We guarantee satisfaction, or your money refunded. The adjustment feature places our phones on a par with the world's greatest makes. Our sales plan eliminates dealer's profits and losses from bad accounts, hence the low price. Better phones cannot be made. Immediate deliveries. Double 3000 Ohm sets, \$3.98; 1500 Ohm single set, \$2.50. Circular free.

Edeson Phone Co. 6 Beach St. Dept. C49 Boston Mass

PRICES SMASHED \$3.00 DOWN

10 Days FREE Trial World's best makes—Underwood, Remington, Oliver—at big savings. Every machine fully rebuilt to look and work like new. Guaranteed for 10 years. Send no money—big Free Catalog shows how to save money on type writers. Easy terms. Write today.
INTERNATIONAL TYPEWRITER EXCHANGE
177 N. State St. Dept. 10-89 Chicago



SCHOOLFILMS

The following courses in American History, Geography, Civics, Nature Study, Physics, Mathematics, Health and Sanitation, and Vocational Training are now being distributed, and additional reels are being perfected as rapidly as a strict adherence to the Society's standards permits.

Each title is a single reel unless otherwise indicated.

All films are printed on non-inflammable stock, standard width.

Foundation and Settlement of the United States

French Explorations in North America
English Settlements in North America
Struggle of French and English for North America
Breaking Through the Appalachians
War of the American Revolution
Settling the Ohio Valley
The Louisiana Purchase and the Lewis and Clark Expedition
Trans-Mississippi Trails
Across the Rockies to the Pacific

Economic History of the United States

The Steamboat in U. S. History
Canals in U. S. History
Railroads in U. S. History
Reclaiming Arid Land by Irrigation
Immigration to the United States
The Panama Canal and Its Historical Significance

Civics

A Citizen and His Government (2 reels)
Growth of Cities and Their Problems
"Hats Off!"—A Story of the Flag

Health and Sanitation

Getting Acquainted with Bacteria
Waste Disposal in Cities
Unhooking the Hookworm

Mathematics

Animated Geometry (2 reels)

Physical Geography

The Earth and Worlds Beyond
Study of a Mountain Glacier
The Work of Rivers
Study of Shore Features—Low Shore
Study of Shore Features—Bold Shore
Formation of Caves in Limestone
Formation of Volcanoes and Geysers
The Story of Coral Growth
A Study of Niagara (2 reels)

Regional Geography

New England (2 reels)
Middle Atlantic States (2 reels)
Southern States (2 reels)
Central Plains (2 reels)
Great Plains
Western Plateaus
Rocky Mountains
Pacific Mountains and Lowlands
A Study of Mexico (4 reels)

Nature Study

Where Plants Live
The Monarch Butterfly
Samia Cecropia, Giant American Silkworm
Pond and Stream Life (2 reels)
The Greenbottle Fly
The Mosquito
Toads
Wasps

Physics

Famous Experiments in Electricity and Magnetism (Produced at Ryerson Physical Laboratory, University of Chicago)
Reel 1. Magnetism
Reel 2. Electrostatics
Reels 3-4. Electromagnetism
Reel 5. Electromagnetic Induction
Reel 6. High Frequency Currents

Vocational Training

Bee Culture (4 reels)
Dairy Management (2 reels)
Dairy Cattle Selection
Dairy Cattle—Types, Breeds and Characteristics
The Engine Lathe and Its Operation (7 reels)
The Milling Machine and Its Operation (8 reels)

Each reel is accompanied by a Teacher's Syllabus containing outlines, questions, supplementary information for after-the-showing comment, and full instructions for the most effective presentation of the film. Syllabi mailed in advance where desired.

**For prices and other details regarding SCHOOLFILMS
write direct to headquarters**

All RED CROSS and JUNIOR RED CROSS films are distributed
exclusively by the Society for Visual Education, Inc.

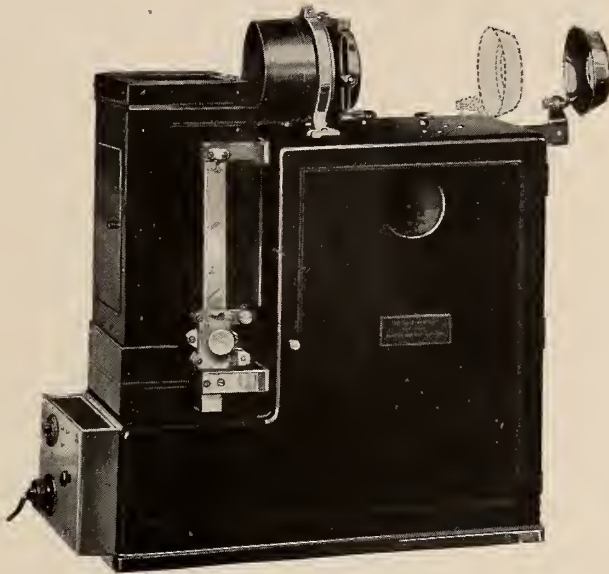
The Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 W. 42nd St., New York

NEW ACME S.V.E.

Now Sold on Easy Payments



Improved Acme S.V.E. combined film-slide projector which stops to show still pictures from the film.

Schools and Churches Secure Acme Projectors on Easy Terms

To assist them in securing the benefits which accompany the use of motion pictures, we have arranged to sell a limited number of improved Acme projectors to schools and churches, on a small initial payment, followed by six equal monthly installments.

There are many ways of raising funds to pay for Acmes. Many churches and schools have worked out plans by which Acmes pay for themselves, leaving a balance for incidental expenses. We will gladly send details of such plans.

The improved Acme S. V. E. combined motion-picture projector and stereopticon with cast aluminum case and 1000-watt incandescent lamp, and the new Acme suitcase Model 12 with 400-watt incandescent lamp, are being sold on extended time payments.

Improved Acmes Show Still Pictures From Film and Have Many Other Exclusive Advantages

Rewind standard 1,000 foot reel in less than a minute. Focus and frame instantly while film runs. Perfected take-up insures even tension of film and prevents lagging. Accurate design and exact construction assure noiseless operation and long wear. New type fan gives maxi-

mum ventilation. Pilot lamp illuminates interior for threading. Operating buttons are plainly marked to show their function. Metal magazines entirely enclose film reels inside projector. Handy. Reliable. Sturdy. Adaptable. Established. Endorsed by users. Guaranteed.

Write For Full Information to Department S.V.E.

ACME MOTION PICTURE PROJECTOR COMPANY
806 West Washington Boulevard, Chicago, Illinois

The only precaution that can make portable projection safe is the use of film that is *safe*

EASTMAN SAFETY FILM

Identified in *black* letters on its transparent margin by the words “Eastman” “Kodak” “Safety” “Film.”

Eastman Safety Film is furnished in two widths, $1\frac{3}{8}$ inches and $1\frac{1}{10}$ inches, Eastman perforation.

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

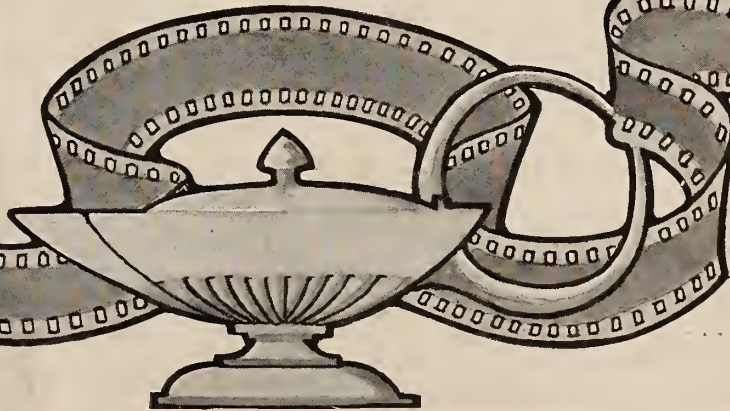
VISUAL EDUCATION

DECEMBER 1922

15cts • 1⁰⁰ a Year



There's a song in the air!
There's a star in the sky!
There's a mother's deep prayer
And a baby's low cry!
And the star rains its fire while the Beautiful sing
For the manger of Bethlehem cradles a King
O Holland



Pictures from Old School Books

JUNIOR RED CROSS MOTION PICTURES

Distributed exclusively by the Society for Visual Education, Inc.

Note these interesting titles:

Schooldays in Albania
Playgrounds in Belgium
Making Helpless Children Happy
About Albania
Among the Black Rocks of
Montenegro
Apple-Blossom Time in Normandy
Athens and the Golden Age of
Greece
Constantinople, Gateway to the
Land of the Arabian Nights
Giuseppe in Venice

In Picturesque Roumania
'Neath Poland's Harvest Skies
Shepherds of Tatra
In Prague, the City of a Hundred
Towers
A Letter from Maria in Florence
Italy
A Letter from Rome
A Letter from Savino in Naples
A Letter from Sezze-Romano
From Jacques to Johnnie

Each of these films is described in detail in the catalogue "EDUCATIONAL MOTION PICTURES." The following thumb-nail outlines of six films are representative of this delightful group.

Apple-Blossom Time in Normandy

This film is full of beautiful scenes of town and country life along the Seine in Northwestern France, photographed during the most alluring season. There is shown the historic village of Falaise, birthplace of William the Conqueror, snuggled under the protection of its old castle; Norman country homes with flowering orchards and herds, and types of simple folk at their tasks of tilling and basket-making.

In Picturesque Roumania

There is probably no more picturesque country in all the Balkans than Roumania with its beautiful native costumes. This picture acquaints you with the country and her people, native handicrafts and problems. The Girls' Industrial School at Breaza is shown where orphans of the war are taught the fine art of weaving and designing the exquisitely embroidered patterns for which Roumania is noted. You may visit one of the Red Cross classes with Princess Marie and inspect the children's hospital at Tekir-Ghiol near the Black Sea, a project very dear to the heart of the Queen of Roumania and a genuine interest of the boys and girls of the Junior American Red Cross.

Shepherds of Tatra

Nestled in the Carpathian mountains, the quaint district of Tatra has once again been joined to Poland after a century of separation. This film reflects the customs and mode of life of a bygone age. Sheep herding, the principal industry of this small mountain country, is carried on much as in ancient times. A glimpse of this simple, sturdy peasant folk at work tending the sheep on the boulder-strewn hillside or dancing to the music of hand-wrought instruments, is afforded in this one-reel travel film.

These films clearly depict the homes, customs, dress, and modes of living of our European neighbors. Each reel is a beautiful scenic film, produced from the educational standpoint. All films are on non-inflammable, standard-width stock.

Rental—\$2.00 per reel per day

*Write to our nearest distributor.
Complete information furnished on request.*

The Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 W. 42nd St., New York

Visual Education

A MAGAZINE DEVOTED
TO THE BUSINESS OF
AMERICAN EDUCATION

Harley L. Clarke, Acting President
Forest R. Moulton, Secretary

L. M. Belfield, Managing Editor
B. C. Brumm, Business Manager

William Chandler Bagley, Chief Editorial Writer



Subscription - - - \$1.00 a Year
Foreign Countries - - - \$1.50
Single Copies - - - 15 Cents
Back Numbers - - - 25 Cents

VOLUME 3

DECEMBER 1922

NUMBER 10

OLD SCHOOL BOOKS AND THEIR ILLUSTRATIONS.....	387
<i>Ruth M. Whitfield</i>	
VISUALIZING HEALTH IDEAS IN CHINA.....	390
<i>W. W. Peter</i>	
A CHILDREN'S PICTURE THEATER.....	391
WHAT IS A GLACIER?.....	392
<i>Mary Vaux Walcott</i>	
THE FILM IN TEACHING DRAWING.....	394
VISUAL INSTRUCTION IN AGRICULTURAL COLLEGES.....	395
<i>Caroline B. Sherman</i>	
VISUAL EDUCATION APPLIED TO THE BACK YARD.....	397
<i>Ruth Williston</i>	
AMERICAN EDUCATION WEEK.....	399
THE RECONSTRUCTION PERIOD AS A TEST OF EDUCATION—EDITORIAL.....	400
<i>William Chandler Bagley</i>	
MOTION PICTURES AND PUBLIC HEALTH.....	401
VOCATIONAL DEPARTMENT	402
PROJECTION QUERIES AND ANSWERS.....	403
<i>F. R. Moulton</i>	
FOR BOYS AND GIRLS.....	404
<i>"Timothy's Quest"—The Story Retold for Children</i>	
<i>A Christmas Hymn: Alfred Dommett</i>	
<i>How About Your Christmas Picture-Story?</i>	
<i>Jack and the Beanstalk</i>	
THE FILMS IN REVIEW.....	408
<i>Oliver Twist—To Have and to Hold—Remembrance</i>	
KEEPING ABREAST OF THE SCREEN.....	410
<i>Brief comments on current films for the special information of parents and teachers</i>	
THE FILM FIELD.....	413
<i>Classified selections of films suggested for school and general non-theatrical use, with addresses of distributors</i>	

Copyright 1922, by the SOCIETY FOR VISUAL EDUCATION, Inc., Chicago

FORECAST FOR JANUARY

Public Safety Lessons Taught Through Motion Pictures

Photographs rich in human interest bear out the writer's statement that the film furnishes the ideal medium of "putting across" to the general public the hazards of the automobile, the fallen electric wire, and the ol' swimmin' hole.

How an English Class Reacted to "Silas Marner" on the Screen

Comments of a high school sophomore English class which, after intensive study of the novel, went in a body to see the film.

Visual Instruction in Los Angeles County, California

Practical advice on how to develop, circulate and house a slide collection, how to build up a film service, and similar problems. Invaluable to visualists everywhere is a series of photographs picturing the simple, efficient slide container devised by the Visual Education Division of Los Angeles County.

Films and Slides in Teaching Literature

Should film and slide be shown before or after the book study of the classic? Should a talk precede, follow, or accompany the screening? What is the ideal length for a classroom film? The head of the English department in a University high school answers these mooted questions. Best of all, she produces a list of films and slides that co-ordinate visual instruction with regular instruction in literature.

"The Call"—a Boy Scout Film

During national Anniversary Week—February 8-15—the Boy Scouts of America will celebrate the organization's thirteenth birthday. There will be country-wide screening of a new three-reel film picturing the experiences of a street gambo who reaches his ideals through Scouting. The January number will tell you his story, illustrated with interesting scenes and closeups enlarged from the film.

Published monthly by the Society for Visual Education, Inc.

806 W. Washington Blvd., Chicago

220 West 42nd Street, New York

Let Us Help You Solve Your Christmas Gift Problem

WHY not give your teacher friends a subscription to a magazine, or a group of magazines, as a Christmas gift? There are few people, indeed, who do not appreciate a present that they can *enjoy the year round*, and you will find listed here the pick of the general magazine field, any one or two of which, in combination with VISUAL EDUCATION, will afford a *whole year* of good reading—recreation, information and inspiration.

"Blue-Ribbon Offer"



VISUAL EDUCATION and CHRISTIAN HERALD

Both for \$2.25

Regular Price \$3.00



"Big Three" Combinations

	Our Price	Regular Price
VISUAL EDUCATION AMERICAN MAGAZINE	\$4.50	\$6.00
COLLIER'S WEEKLY		
VISUAL EDUCATION YOUTH'S COMPANION	\$3.75	\$5.00
WOMAN'S HOME COMPANION		
VISUAL EDUCATION REVIEW OF REVIEWS	\$5.50	\$7.50
SUNSET MAGAZINE		
VISUAL EDUCATION ILLUSTRATED WORLD	\$3.00	\$5.00
McCALL'S MAGAZINE		
VISUAL EDUCATION WOMAN'S HOME COMPANION	\$3.25	\$4.50
AMERICAN BOY		
VISUAL EDUCATION AMERICAN MAGAZINE	\$4.00	\$5.50
CHRISTIAN HERALD		

	Our Price	Regular Price
VISUAL EDUCATION AMERICAN MAGAZINE	\$3.75	\$5.00
PICTORIAL REVIEW		
VISUAL EDUCATION PICTORIAL REVIEW	\$3.25	\$4.50
AMERICAN BOY		
VISUAL EDUCATION REVIEW OF REVIEWS	\$5.00	\$6.50
WOMAN'S HOME COMPANION		
VISUAL EDUCATION MENTOR	\$6.50	\$9.00
SCRIBNER'S		
VISUAL EDUCATION CHRISTIAN HERALD	\$4.00	\$5.50
YOUTH'S COMPANION		
VISUAL EDUCATION PICTORIAL REVIEW	\$5.00	\$6.50
MENTOR		

Other Attractive Clubs

Visual Education with	Our Price	Regular Price
American Magazine	\$2.75	\$3.50
American Boy	2.25	3.00
Christian Herald	2.25	3.00
Collier's Weekly	2.50	3.50
Etude (For Music Lovers)	2.25	3.00
Fruit, Garden and Home	1.10	1.35
Illustrated World	2.50	4.00
McCall's Magazine	1.25	2.00
Mentor	4.25	5.00

Visual Education with	Our Price	Regular Price
Normal Instructor-Primary Plans	2.50	3.00
Pictorial Review	1.75	2.50
Progressive Teacher	2.50	3.00
Review of Reviews	4.25	5.00
Scribner's	3.75	5.00
Sunset Magazine	2.75	3.50
Woman's Home Companion	1.85	2.50
Woman's World	1.10	1.50
Youth's Companion	2.75	3.50

Use This Coupon

Visual Education
806 Washington Boulevard
Chicago, Illinois

12/22

I am enclosing \$.....for which please send the following magazines to the people listed herewith.

Magazines

Name

Address

Magazines

Name

Address

Magazines

Name

Address

THE HAPPY SCHOOL



We love our teacher and our school;
How dear the place where love doth rule!

One of the many quaint illustrations that enliven the pages of the "Gradual Primer," published in 1855 by David B. Tower. How strikingly such a picture visualizes the difference between the schools of then and now!

Old School Books and Their Illustrations

RUTH M. WHITFIELD

New Trier Township High School, Kenilworth, Illinois

IN America, from colonial days to the Revolutionary period, the only books used for instruction of the young were English in their origin and religious in their purpose. Children learned to read the Bible, and they were taught the Catechism in order to become better acquainted with the commandments of God.

Religious teaching naturally predominated in the early settlements, for the very reason that the colonists had come to this new land with the purpose of there establishing their chosen religion. They felt the supreme importance of training their children in the ways of God, and therefore provided them with only such reading matter as the Bible, the Testament, the Psalter and the Catechism.

Paving the Way for Free Schools

One of the first laws passed by our far-seeing Puritan forefathers was the famous Massachusetts law of 1642, which ordered that all children should be taught to read. This was the first time in the English-speaking world that a legislative body representing the state had made such a decree.

No schools were provided for, however, by the law of 1642, and hard pioneer conditions caused

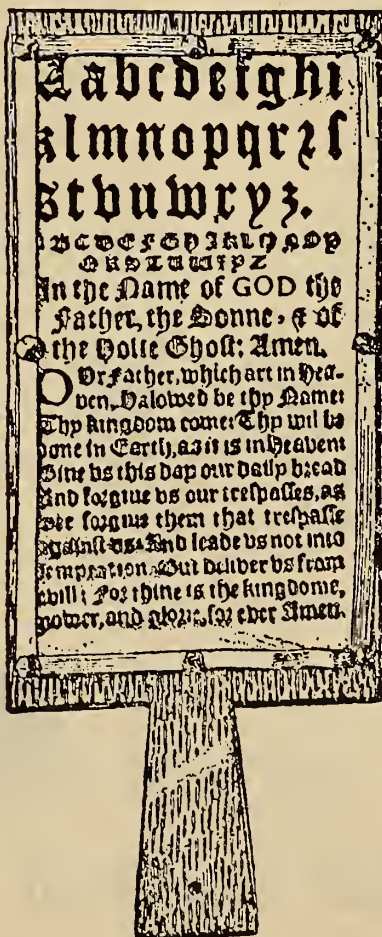
parents and masters to become neglectful of the home instruction required. To remedy this condition a law was passed in 1647 which or-

dered the establishment and maintenance of elementary schools for all children in all towns, and secondary schools for the boys in towns of over one hundred families, under the penalty of a fine if the law was not obeyed. These requirements were very important, because they provided means for every child to obtain the elements of an education, and for the boys, at least, a fair one.

Hornbooks—the Primers of the 17th Century

The Hornbook was the forerunner of the textbook. As shown in the illustration, it was a thin board covered with paper on which was printed the alphabet and usually the Lord's Prayer. Over this board and paper was a thin sheet of nearly transparent horn, which served as a protection from finger-marks. From this Hornbook children learned their letters and began to read. Cowper describes it thus:

Neatly secured from being soiled or torn,
Beneath a pane of this translucent horn,
A book to please us at a tender age
(Tis called a book, though but a single page)
Presents the prayer the Savior designed
to teach,
Which children use, and parsons—when
they preach.



A HORNBOOK

The New England Primer

The "New England Primer" played an important part in the early history of the education of Americans. We know that it was printed in America prior to 1691, because notices referring to it appeared in that year in the pages of Newman's Boston Almanac. For more than a century and a quarter it was used throughout the New England states, and it was so universally popular that during that time about eight million copies of it were sold. There were only eighty-eight pages, three and one-quarter

The COCK.



The Cock doth crow to let you know
If you be wise, what Time to rise.

The PARROT.

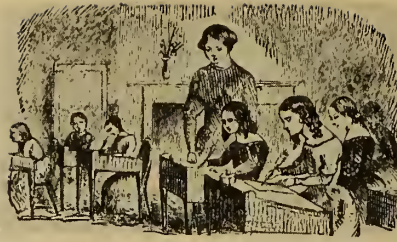


The Parrot prates he knows not what,
For all he says is got by rote.

A page from the "New England Primer," edition of 1785.

inches wide and four and one-half inches long. The binding was literally of boards, not in the modern sense of pasteboard, but strips of wood one-eighth of an inch thick, covered with thin paper.

An edition of the "New England Primer" of about 1785 contains



A SCHOOLROOM

A reproduction from the "Gradual Primer" (1855).

both secular and religious reading matter. The alphabet in different types and lists of syllables and of words from one to six syllables occupy the first few pages, followed by the Lord's Prayer and the Creed. Several pages of Proverbs from the Bible precede the Catechism. Verses containing moral lessons for the instruction and guidance of children are included in this tiny book that was so influential in the lives of our early Americans. The reader is told:

He that ne'er learns his A, B, C,
Forever will a Blockhead be;
But he that learns his Letters fair
Shall have a coach to take the air.

Decreasing Emphasis on Religious Teaching

In the coast colonies the predominance of religious ideas gradually waned as the second and third generations of the descendants of the Pilgrims became interested in commerce. The rise of new trade interests saw a corresponding diminution of the old religious fervor and intolerance.

When the hostile Indians were subdued and it became safe to found new towns inland, many families moved westward. These pioneers were less interested in religion and learning than were their forefathers who had suffered

from religious oppression in the Old World. The settlers of the new inland towns worked hard to establish themselves and to organize their government. This change in dominant interest resulted in the introduction of secular as well as religious instruction, and gradually the former became the more important. While this involved a change in the type of school books, it was not until about the time of the Revolution that the first purely secular textbook appeared.

Webster's Speller

The first distinctively American textbook was Noah Webster's



In Adam's Fall
We sinned all.



Thy Life to mend.
This Book attend.



The Cat doth play,
And after slay.



A Dog will bite
A Thief at Night.



An Eagle's flight
Is out of sight.



The idle Fool
Is whipt at School.

From the "New England Primer," 1785 edition.

"blue-backed Speller," which was published in 1783 in Hartford, Connecticut. Another of the early secular books was a grammar by Caleb Bingham called "The Young Lady's Accidence," which was used in the schools as early as 1804. The author says that it was "designed



This is in truth
A lazy youth.

From the "New First Reader," by Noble Butler (1869).

The reproduction below is taken from the "American Primer," by Wm. J. Davis (1874).



This ape can drink,
But does he think?



Bad men beat brutes.
How cruel this one is!



A picture from the "Gradual Primer," by David B. Tower (1855), illustrating words with short "a."

principally for the use of young Learners, more especially those of the fair sex, though proper for either." These were small, dull-covered and unattractive-looking books. Each page was printed in very small type, with no illustrations to relieve the severity. It was nearly a generation before even crude wood-cuts were used to make school books more interesting to pupils.

Tiny Pictures and Frequent Rhymes

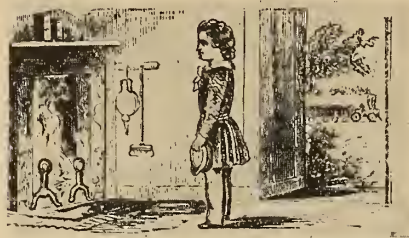
While illustrations made the printed page more readable, the pictures in the old school books were so small that children's eyes could scarcely accommodate themselves to the drawings; they were crude in art, and they showed poor pedagogy so far as ideas were concerned.

The early Primers and First Readers had many small pictures on every page. The type was small, irregular and hard to read. The eyes that pored over it by firelight or candle-light must often have ached. Besides the alphabet, there were two lines of words of one syllable, usually in rhyme, and a picture interpreting each of these units. Sometimes the lines did not rhyme, as is illustrated by the accompanying example from the "American Primer."

Rhyming, however, was extensively used; in many cases it was perhaps overdone. The words *bug*, *jug*, *mug*, *rug*, for instance, are worked into a rather nonsensical jingle: "Can the bug lug the jug to the rug?"

When pupils progressed beyond the Primer stage in their education, they were taught to read words of

two syllables. These words were arranged in columns and at the top of each column was a picture illustrating the first word but having no connection with the others in the list. It is interesting to note, in the accompanying illustration, that the first word in the column is *crier*, a word whose meaning would



Another illustration from Tower's "Gradual Primer," visualizing words that contain the letter "r."

have to be carefully explained to a child in school today. That word in itself dates the book from which it was taken.

A picture in the "Gradual Primer," printed in 1855—at least twenty-five years after it became popular to illustrate textbooks—presents an artificial conglomeration of unrelated ideas. Into one picture are put crude representations of the words *fan*, *hat*, *cat*, *map*, *nap*, because they are of one syllable each and based upon the vowel short *a*. The man wearing

a high hat and looking at the map seems out of place near the children who are taking a nap; nor is it quite evident why the boy is fanning the cat. The words illustrating the point to be taught in reading were visualized without regard to the reality of the resulting picture.

Another lesson in alphabet sounds is illustrated in a similar picture from the same book. The purpose is to teach the use of the consonant *r*. The words *freplace* and *train* were selected and put into the illustration, even though there was no relation of ideas. The train looks old-fashioned enough to convince one that this picture is taken from a book at least fifty years old. Other words containing *r* are introduced into the reading matter accompanying the picture: "I will not go near the fire. I fear it will burn me."

(To be continued)

A lesson in words of two syllables, reproduced from Butler's "First Book in Spelling and Reading" (1868).



cri-er
tru-er
flu-id
glo-ry
sto-ry



An example of the way rhymes were put to use in old school books. From Butler's "First School Reader" (1869).

Coming N. E. A. Meetings

THE Department of Superintendence of the National Education Association will hold its annual meeting in Cleveland instead of Chicago, it having been found impossible to make suitable arrangements in the latter city. The time set is February 26 to March 1, 1923. A later issue will carry announcements of the program.

The time of the next convention of the N. E. A. as a whole is announced as the first week in July, and the place as Oakland and San Francisco, California. Educators from many foreign lands—Great Britain, France, Italy, Japan, and others—are expected to attend as delegates, in an effort to unite the educational forces of the world.

Visualizing Health Ideas in China

W. W. PETER

Secretary, Council on Health Education, Shanghai, China

IN CHINA ignorance and superstition with regard to health are the accepted conditions. Modern scientific sanitation is still a western innovation, dimly rumored, vaguely feared. The Chinese for the most part are all too willing to go on living—and dying—exactly as their revered ancestors for many generations have lived and died.

Theories, therefore, have little weight with an oriental audience. Most of them cannot read, so that literature is wasted upon 80 per cent of them. Charts, posters, lantern slides and moving pictures with a definite and pointed message have, however, proved exceedingly effective, and since 1914 the Council on Health Education has been developing a distribution center through which material of this description, as well as simple literature, may be available for all China.

A Health Campaign in Foochow

To illustrate methods by which health principles are presented to a community through the eye-gate, let us study the typical case of Foochow. Foochow wished to improve its general health conditions, but it had also a very definite aim on which to center its efforts: the fight against cholera. In 1919 a frightful epidemic of cholera swept the city, the number of its victims being variously estimated as between ten and twenty thousand.



One of the floats making its way through the narrow, dingy streets of Foochow. Everywhere crowds watched—and learned.

Various measures were employed to check the ravages of the disaster. The Governor spent \$5000 gold on parades and burned up prodigious quantities of firecrackers, paper counterfeit money and other offerings in an effort to propitiate the offended deities.

The Y. M. C. A. organized a Health and Sanitation Association. To be sure, the Governor endorsed and assisted this more modern method of fighting disease, but it is typical of the transitional period through which China is passing that the Chinese official played the game both ways. The Association was led by Admiral C. P. Sah, who left Foochow to become Minister of the Navy and was for a time acting Premier of China. Nine thousand men, women and children were treated by the Association during the epidemic and much good was accomplished.



The health parade crossing the picturesque Bridge of Ten Thousand Ages where it spans the Min River.

Fourfold Visualization

Prevention instead of partial cure, however, was recognized as being far more valuable; so early in 1920, before there could be a recurrence of the cholera calamity, this Association asked the Council on Health Education to conduct a health campaign in Foochow. It was the ideal of this campaign to educate even the most ignorant citizens of Foochow in rudimentary hygiene, which would prevent their

falling victims to this dangerous sickness.

The four features of the health demonstration were:

- Lecture demonstrations
- Daily moving pictures and lantern slides
- Daily parades
- Constant distribution of health literature

What the Floats Drove Home

Probably the message of the entire campaign was best put across by means of the moving pictures and the parade, and as the latter illustrates most definitely the principles of visual instruction which the Council is popularizing, let me go into some detail as to its methods.

For a week beforehand a special committee was busy preparing the floats and material to be used in the parade. Everything was made to contribute to the one central message; namely, that cleanliness and simple sanitary measures are the best preventives of cholera.

The parade consisted of two student bands, the military governor's band, Boy Scouts, and twenty-five floats accompanied by announcers with megaphones who told the crowds the meaning of each display. One float portrayed the folly of trying to economize on fuel by drinking unboiled water, imperfectly boiled tea, or only partly-cooked food. Another related to the method of dish-washing. If dirty water



Showing the gaunt figure of Cholera and the housetop audience, eager to miss none of the show passing down below.

was used and the dishes were later left out where the flies could reach them, the cholera germ found its way readily to the food and later into the mouth. Another float showed simple but effective ways of screening rice bowls, chopsticks, closets and stools used for toilet purposes, and the like. The next showed imperfectly cooked and cold food on the table, with flies all around carrying infection from an open toilet near by.

Following each float, with its own vivid particular message, came stretchers bearing representations of corpses, victims of cholera, and coffins ready for cholera's toll. Cholera and health were represented by two figures: Cholera impersonated by a stilt-walker, tall and thin, with cadaverous mask; Health, or Mr. Wiseman, as he was also called, short and fat and jolly, walking where Cholera went but able to keep well because he observed the rules of hygiene.

Large Audiences Reached

The parade consisted of between 400 and 500 persons. It started every afternoon at four o'clock from central headquarters and returned between seven and eight in the evening. Each day it followed a previously mapped-out route, and in the course of six days covered



A popular float illustrating the right way to wash dishes in order to defeat the rampant cholera germ.



Cholera's toll visualized by stretchers bearing grim, shrouded representations of victims to the dread disease.

more than 90 per cent of the entire city streets. It is difficult to estimate the number who thus received the message of health from the parade, but it is conservatively estimated as at least 210,000 people.

Moving pictures were taken of this parade and our illustrations show several enlargements made from these films. One of the cuts

shows the picturesque bridge of the city. All the roads and rivers of Fukien flow together at Foochow, where the last road ends in the Bridge of Ten Thousand Ages, crossing the Min.

Striking While the Iron Was Hot

Mr. Wiseman and Cholera always attracted crowds, and as the parade passed along the city streets the movie man snapped on-lookers as well as participants. While the float visualizing the right way to wash dishes made its way past the intently watching crowds, the megaphone announcers would call out, "How do you wash your dishes? In ordinary cold water? Would you save a little fire-wood and get cholera? There is a better way! Scald your dishes with boiling water! And don't forget the chopsticks!"

The Foochow campaign proved conclusively the importance and success of the plan of reaching people through the eye with the principles of everyday hygiene. Evidences have not been lacking that many have taken to heart the lessons they learned in this way. To quote only one striking instance, many of the meat, food and fruit shops are today using wire screen cupboards similar to those they saw in the parade floats.

A Children's Picture Theater

A MOTION-PICTURE playhouse exclusively for boys and girls has been opened in Watertown, New York, with pictures and music selected specifically for their appeal to children, afternoon performances beginning shortly after school closes, and all evening performances timed to enable children to be at home in good season for an early bedtime. Moreover, this theater excludes all grownups except such as come to escort children.

Stories of juvenile interest,

wholesome comedies, educational and scenic reels, and novelty films having an educational basis constitute the programs, which are chosen in direct co-operation with those various agencies that interest themselves in children's welfare. All programs are shown for the approval of these agencies a full week in advance, to permit of registering objections and securing substitute features.

An improved ventilating system has been installed, and as a further protection to health no one is ad-

mitted after the house has reached its capacity. On Saturday mornings there are free shows for the poorer children of the city, tickets for which are given out by the orphanages, Parent-Teacher Association and Salvation Army. The general admission price is ten cents.

This novel experiment will be watched with keen interest by such educators, parents and citizens in general as have taken the position that a special theater for boys and girls offers the most logical and immediately practical solution of the vexing problems that censorship, thus far at least, has failed to deal with satisfactorily.



ICE FALL ON SOUTH LYELL GLACIER

As the glacier flows slowly downward over a steep, narrow, rocky bed, the ice is compressed, resulting in the formation of marvelous ice falls, with countless pinnacles, separated by crevasses that may be exceedingly deep. This photograph not only shows such an ice fall but gives a very clear picture of the flood plain of a glacial stream.

What Is a Glacier?

MARY VAUX WALCOTT

Smithsonian Institution, Washington, D. C.

WHAT is a glacier? A glacier is nothing less than a river of ice, and subject to all the laws applying to an ordinary river. Fed by the snows that fall so persistently on Alpine slopes at high altitudes, the snow is consolidated by the increasing weight of the mass into crystallized ice, which then begins to move down the steep slopes. The snow field or *névé* may be likened to the quiet lake which feeds the mountain stream.

Where there are high cliffs the wind blows the snow over, or great

avalanches of ice and snow softened by the sun's rays fall to the glacier below. These avalanches also carry their load of rocks and *débris*, and so the slowly moving glacier is a powerful agent in carrying untold quantities of rocks and earth for many miles.

Ice Falls, Seracs and Crevasses

As the glacier flows slowly downward over a steep, narrow, rocky bed the ice is compressed, and here we find the marvelous ice falls, with countless pinnacles, or *seracs*, separated by crevasses that

are sometimes of great depth. When the space widens the ice spreads into a flat surface, the center always flowing more rapidly than those parts near the sides. This uneven motion causes lateral cracks to open, and in many cases deep and wide crevasses are formed, especially late in the season when melting has gone forward actively during a hot summer. The dry glacier at the lower part is usually formed of clear, hard ice, which when shattered by a sharp blow breaks up into characteristic ice crystals.

How "Stone Tables" Originate

The melting ice on the glacier surface causes many interesting phenomena. A large rock will be seemingly elevated above the surface, supported by a pillar of ice. The rock has protected the pillar from the sun's rays as the surrounding glacier has melted away. The protecting rock slants toward the south. When the ice column is sufficiently weakened by melting, the stone falls over and a new "stone table" at once begins to form.

Small stones absorbing the sun's heat sink into the solid ice as though they had been artificially heated, forming little pools of water, while the larger stones and boulders dropping into the crevasses become embedded in the ice and form the chisels that cut and grind each other and the glacier bed as the weight of ice moves forward over the bottom. Glacial scratches can often be seen on rocks in places far from any living glaciers, while north of Lake Superior the rounded and polished granite hills and slopes testify to the mighty power of the glaciers that passed over them long ages ago.



A HANGING GLACIER

Mount Assiniboine, south of Banff, Alberta, Canada, showing hanging glacier and ice cones formed by falling avalanches. Note the glacial lake in the foreground.



ICE AVALANCHE ON MOUNT VICTORIA

Avalanche of ice and snow, near Lake Louise, falling about 1,800 feet from the hanging glacier above to the dry glacier below. Note the debris on the glacier's surface. The glacier is a powerful agent in carrying untold quantities of rocks and earth for many miles.

Glacial Streams

Sinuuous streams of water flow down the slopes, sometimes forming deep *moulins*, or wells, where they plunge into a crevasse, and finally all these streams find their way into the main drainage channel under the ice and emerge from the fore foot of the glacier, sometimes from a vaulted arch, where the clear green ice lends itself perfectly to nature's carving by water and wind. Glacial streams are always heavily laden with *débris*. The fine rock flour is deposited by the way, but the grayish coloring is often observed many miles from the parent glacier stream.

The Tell-Tale Moraines

The boulders, heavier rocks and earth are dropped along the lower sides and fore foot of the glacier,

and form the lateral and terminal moraines. As the glacier advances, these terminal moraines are pushed forward by the snout, leaving an unfailing record of the position of the ice at a given time. Alpine lakes, and water courses cut in the solid rock, also give testimony to the action of the ice in carving the earth's surface. When a great amount of glacial material is carried down from a glacier by the stream, we often see broad valleys that are gradually being filled in, the stream changing its course from time to time as fresh deposits are made. In autumn, when glacial melting is at a minimum, the dry beds of these streams give

easy access to the heart of the mountain ranges.

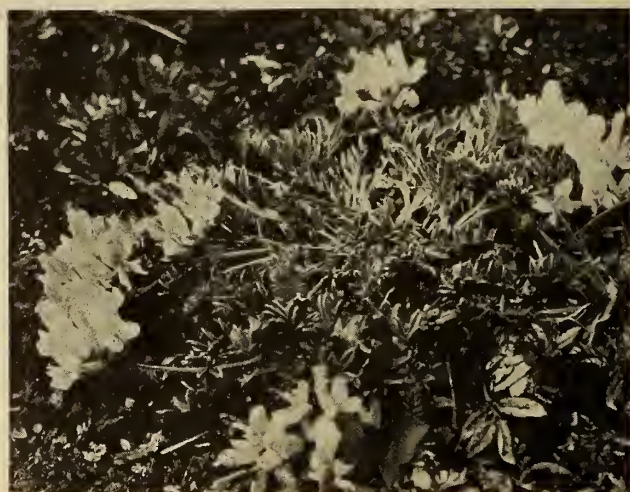
Observations and Records

It is only for about two hundred years that observations on glaciers and glacial phenomena have been made. Prior to that time they were practically unnoticed. Although the Roman engineers built roads through Switzerland and traveled them for centuries, bridging glacial streams and crossing perilous glaciers, only very brief allusion is made to these ice rivers.

Today the study of glacial phenomena is being pursued in many parts of the world. Variations of

climate and precipitation are main factors in the changes now being observed. The glaciers of British Columbia and Alberta are nearly all showing marked recession, the exceptions being in the case of glaciers whose local surroundings, covering of *débris*, etc., prevent the melting from exceeding the supply of ice forced down the mountain sides from the *névés* above.

Observations covering a long series of years will be necessary to solve the problems surrounding modern glaciers—remnants of the mighty ice cap that in prehistoric times covered so large a portion of the northern hemisphere.



ALPINE FLOWERS

Just a suggestion of some of the frail, lovely blossoms that beautify the higher slopes. The clump at the left is Mountain Oxytropis; at the right is a mass of Moss Campion.

The Film in Teaching Drawing

THE inspector of artistic and technical teaching of the Ville de Paris—Adrien Bruneau—has applied the film to the teaching of drawing with signal success.

"When a short film of dogs, cats, birds, dancers or horses is shown," says a writer in the *Christian Science Monitor*, "the pupil looks; he follows every movement; he tries

to catch it and remember, to seize the most synthetic and significant image. The child makes a sketch immediately, and a week later another.

"The results are remarkable. A dog drawn by a child of seven is extraordinarily accurate in the movement of the ears, the expression of the eyes, the position of the paws. And the dancers! With

what precision has the pupil caught their attitudes, their gestures, the folds of their garments! The dress drawn from the living mannequin passing on the film is not rigid, flat and formal; it takes account of volume and life. Gradually the pupil passes from the stage of imitation to that of composition. His imagination begins to play its part.

"Mr. Bruneau's aim has been to inspire the pupil to use his observation, his memory and his imagination—in short, to reform the teaching of art. Much of this he has already accomplished, and even more is possible in the future."

Visual Instruction in Agricultural Colleges

CAROLINE B. SHERMAN

Assistant in Market Information, Bureau of Agricultural Economics, Washington, D. C.

INSTEAD of placing its exhibit material in storage, after its tour of state fairs last autumn, the Federal Department of Agriculture decided upon the experiment of offering the exhibits relating to the marketing of farm products to agricultural colleges within a reasonable distance from headquarters. The northeast and southeast sections of the United States were selected for the experiment.

In answer to letters of inquiry, thirteen colleges applied for the exhibits, were able to meet their side of the offered agreement, and could use the exhibits on dates that would permit systematic circuits to be arranged. These colleges were grouped into two circuits—a northern and a southern circuit—over which schedules running from January to May were arranged. Many other colleges which applied for the exhibits were so scattered that they could not be grouped advantageously, or dates could not be arranged to suit.

Exhibit Materials Used

The exhibit for the northern circuit related to grain grading under Federal standards, wool grading under tentative standards, and wool manufacturing processes; the market classes and grades of live-stock and meats; and the standardization of containers for farm products. Models of a sweet potato storage house, a white potato storage cellar, a common (apple) storage house, and a United States standard refrigerator car were included.

The exhibition for the southern circuit related extensively to the grading of cotton under Federal standards and to cotton warehousing and manufacturing processes, and included grain grading with emphasis on the chief local grain crop.

What the Exhibits Included

The grain grading exhibit showed the correct method of obtaining samples to be tested, instruments for making the tests, type trays showing both varieties and grades, processes of testing, and baking tests of various wheats. A complete set of grain testing apparatus was exhibited and used.

The wool exhibit carried glass-covered cases containing samples showing the tentative grades for wool and specimens illustrating the various stages of manufacture, from the raw product to the finished goods, according to the Bradford, French and Woolen systems.

The display case relating to live-stock and meats contained colored transparencies of typical grades of live-stock and commercial cuts of meat obtained from various classes of beef cattle.

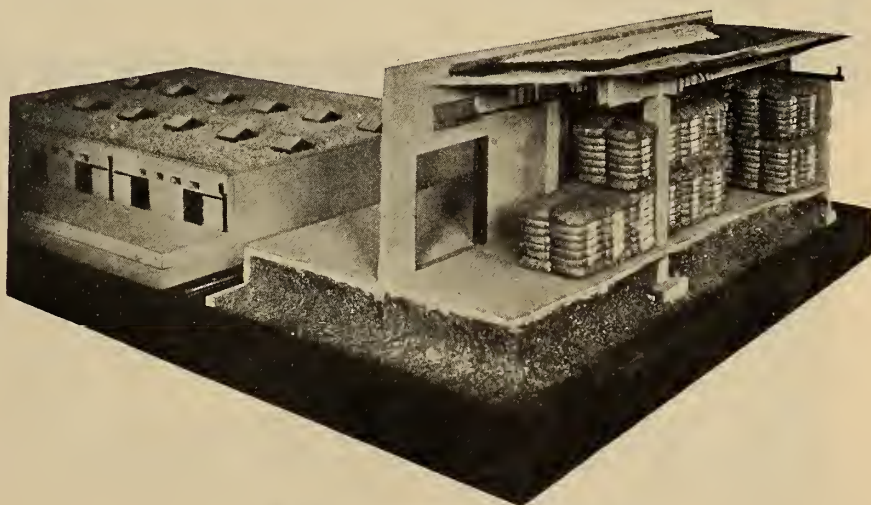
The exhibit dealing with the standardization of market and shipping containers consisted of three panels carrying colored photographs of the many and confusing sizes and types of market baskets, hampers and other shipping containers found in the markets,

with graphic illustrations to show the actual losses to the consumer who purchases from non-standardized containers. One of the accompanying photographs shows one feature of this exhibit.

The cotton standards and warehouse exhibit consisted of panels showing the official cotton standards for Upland white cotton, Upland colored cotton, and Sea Island and American Egyptian cotton, the process of cotton manufacturing and testing, country damage of cotton, and cotton handling and marketing. Five models of cotton warehouses of approved construction accompanied the exhibit.

Specialists in Attendance

In each case an expert from the Department of Agriculture attended all exhibits. At nearly every college the exhibit was joined by Federal grain experts from the nearest grain inspection office, and on some occasions it was possible to fill demands for special lectures. Banners and pennants were supplied with all exhibits, bulletins of the Department were distributed, and moving pictures from the Department were shown at night.



MODEL OF COTTON WAREHOUSE

Here we have both the complete model and an enlarged detail showing the construction of the interior and the method of stacking the bales of cotton.



STORAGE HOUSE FOR APPLES

Model for common storage house, cooled by ventilation—"common" in this case meaning neither hot nor cold storage, but just common storage. Note floor and roof ventilators, the double doors, and the shutters for protection. The cut-away shows interior construction.

Correlation of Work

At every point a definite effort was made to correlate the exhibits, demonstrations and lectures with

the work of the college classes. In most cases the colleges arranged regular schedules for the students, who visited the exhibits by classes, practically all periods of the school day being utilized. In some cases lectures and demonstrations by the Department representatives present were made to as many as twelve classes a day.

"We were informed that practically every class at the college studying agriculture was brought before us during the week," wrote our exhibitor at North Carolina, "including those attending the farmers' short course, the vocational training classes, and the special cotton industry classes."

Actual demonstrations of the

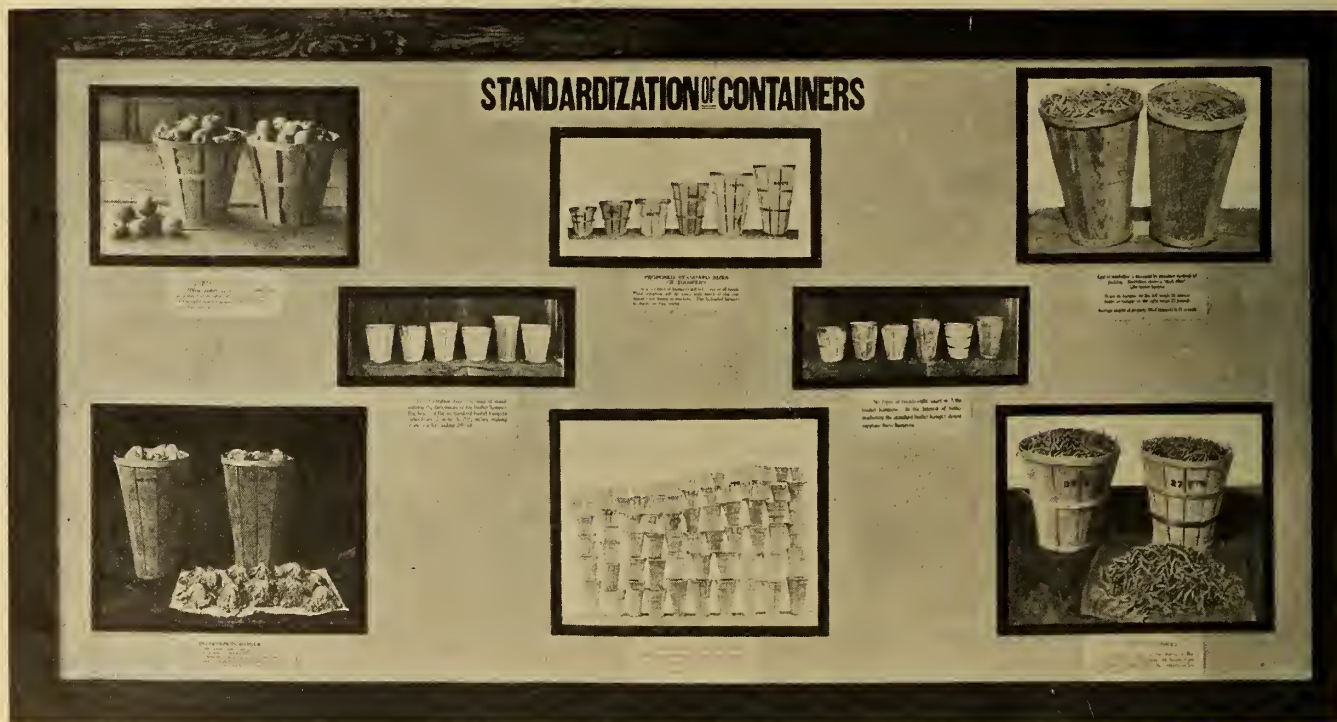


SWEET POTATO STORAGE HOUSE

Model of inexpensive type of storage house, showing heater stove, double doors, and details of roof construction.

grading of cotton and grain by Federal standards were made pointedly practical by the offer to grade samples of any cotton or grain brought to the demonstra-

(Continued on page 412)



COLORED ILLUSTRATIONS RELATING TO THE STANDARDIZATION OF CONTAINERS

(The captions below reproduce the text of the labels)

DECEPTION IN HAMPERS

These baskets appear to be about the same size, but the standard half-bushel hamper on the right holds 8 apples more than the 13 1/2-quart hamper on the left.

This illustration shows the need of standardizing the dimensions of the bushel hamper. The height of the six standard bushel hampers varies from 17 inches to 22 1/2 inches, making proper car-lot loading difficult.

To the eye these hampers appear identical. Produce packed in 5- or 6-peck hampers sell wholesale at the same price. Lettuce repacked from the large to the smaller hamper showed a difference in capacity of the hampers of 12 heads, the hamper on the left containing 49 heads while the hamper on the right contained 37 heads.

PROPOSED STANDARD SIZES OF HAMPERS

These six sizes of hampers will take care of all needs. Their adoption will do away with much of the confusion now found in markets. The 1 1/2-bushel hamper is made in two styles.

Illustration shows 75 odd sizes of hampers that now confuse both buyers and sellers. Note the variation in shape of many hampers of the same capacity.

DECEPTION IN HAMPERS

Cost of marketing is increased by improper methods of packing. Illustration shows a "slack filled" 7/8-bushel hamper. Beans in hamper on the left weigh 25 pounds. Beans in hamper on the right weigh 23 pounds. Average weight of properly filled hampers is 27 pounds.

Six types of 28-quart or 7/8-bushel hampers. In the interest of better marketing, the standard bushel hampers should supplant these hampers.

The pile of beans on the burlap is the overflow obtained by pouring the beans from the bushel hamper into the 27-quart hamper.

Visual Education Applied to the Back Yard

RUTH WILLISTON

Oak Park and River Forest Township High School, Oak Park, Illinois

FOR some time a brief outline of landscape gardening has been a part of the botany course at the Oak Park High School. This was introduced instead of work in agriculture, inasmuch as Oak Park is a village of homes where most of the agriculture is carried on in the back yard.

The Inspiration of Pictures

At first the work consisted only of reference reading, discussions and brief field trips, but it was soon discovered that by using magazine pictures to illustrate points discussed in class, more ground could be covered in the time available. Accordingly, the school library subscribed for *Country Life in America*, which pupils were allowed to cut up and use to illustrate the articles they were writing as reports of their reference reading. These pictures at once became an inspiration to deeper study and wider research. More and more clipped illustrations continued to pour in upon us from the broken files of old magazines laid away in Oak Park attics. As the pictures accumulated, more references were needed to cover the subjects illustrated, and this in turn brought in still other pictures, until before very long the botany laboratory was littered with cut-out pictures, scraps and magazines.

Designing and Modeling the Garden

The next step was the planning of gardens on paper. Interest in this part of the work was accelerated by two prizes of five dollars each offered by one of Oak Park's garden enthusiasts, Mrs. Vernon C. Watson. Practically every one in the botany classes submitted a plan, supplemented by a complete list of the materials to be used in planting.

At this point Mrs. Theron Colton, who had seen some of the work



A rose-covered pergola separates the service yard and the kitchen garden from the formal flower garden. As this is a corner lot the garage, in front of the vegetable garden, opens directly upon the street.

which had been handed in, asked whether the classes would be willing to send in something for display at the All-Outdoors Exhibit of the Conservation Committee of the Illinois Federation of Women's Clubs. Several plans whose dimensions were best fitted for the space allotted at this exhibit were selected to be modeled.

As the modeling progressed, these plans began to show flaws which the authors had not before realized. In some cases the house proved to be out of proportion to the planting, and plant materials selected for representation had to be changed to taller types. Another fault was a poorly-arranged service yard, with no entrance for the grocery boy or the ash man. But perhaps the most glaring mistake was in the location of the vegetable

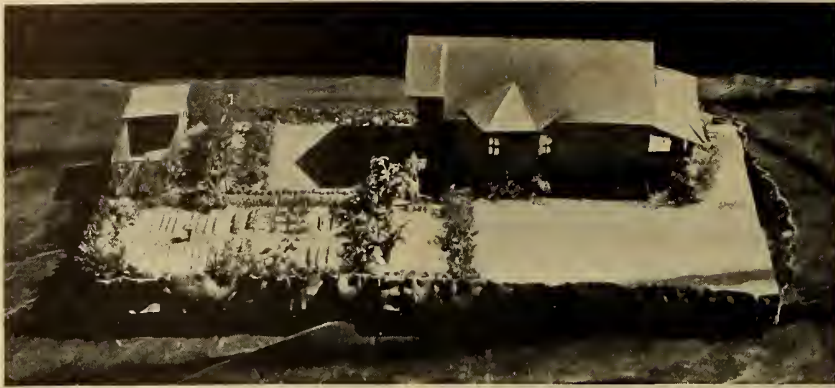
garden, which too often, it was found, had been placed in the shade. One model, whose planting list looked very well on paper, greatly surprised its maker by presenting a stiff and clumsy appearance when developed, due to the uniform height of the bushes. This plan had to be altered and the plant list changed, so that before the work was completed the model had been almost entirely done over. However, it proved to be well worth the effort, as it carried off one of the prizes.

How the Models Were Made

The ground work of the models was plasticene and the houses were made of cardboard either tinted with water colors or covered with clay. Club moss from the north woods made most of the trees, and the garden paths were of bird gravel. The modeling brought out much ingenuity on the part of the pupils and developed considerable resourcefulness in the adaptation of materials. A trellis of tooth-picks was covered with a rose vine of raveled green yarn, set with tiny pink sealing-wax roses. Green raffia furnished a corn patch, and seed pods from a weed supplied excellent



The side view of this tiny stucco house shows the vine-covered back porch placed conveniently near the well-stocked vegetable garden. The driveway entrance is screened by a large lilac bush. The unroofed front porch—not shown in the picture—is screened from the street by low planting only, as it is on the west and shaded in the afternoon.



A free space in the back yard for drying clothes, a direct route for the milkman and the grocery boy to the back porch, a vegetable garden, fruit trees, grape-vines, raspberry bushes, and last but not least, a well-camouflaged chicken yard, make service and efficiency the keynote of this planting as well as beauty.

cabbages. Catkins from the artificial flower counter made the rows of beets, and blue-green yarn the rows of onions for the vegetable garden. Wire gauze threaded with green silk for vines served equally effectively as a tennis screen or a fence for the chicken yard. One model boasted a bird garden with a pool and a thicket of trees and shrubs to provide food for winter. The red berries were put on with tiny drops of sealing wax; the bird

bath was built of modeling clay, and California straw flowers set in the clay background with a pair of forceps gave color to the garden, as did the raveled yarn edging for the flower beds.

Some Tangible Benefits

By the time the little models were finished the pupils had acquired very definite ideas of massed planting, open lawn spaces, and balance. They knew how to make the

house and garden seem related and how to connect the different parts of the yard with one another. Sun and shade were thought of with reference to the usefulness of garden and porches. They had learned that the place provided for drying clothes had to be in the sun and near the kitchen, as did likewise the vegetable garden. The view from the street was considered, as well as the views from the windows. The convenience of garage and driveway was arranged for, as well as the screening of the service yard.

These models in little visualized to the pupils the importance of details which they had unknowingly slighted, showing them as nothing else could how such points, if overlooked, could ruin the entire plan of the garden. Moreover, the habits of observation and analysis of effect acquired while working on the models opened the eyes of the botany classes to many things which they had never before noticed in their home village.

NOT MINE TO HOARD

And if I share my crust,
As common manhood must,
With one whose need is greater than
my own,
Shall I not also give
His soul that it may live,
Of the abundant pleasure I have
known?
And so, if I have wrought,
Amassed, or conceived aught
Of beauty or intelligence or power,
It is not mine to hoard:
It stands there to afford
Its generous service simply as a flower.

—BLISS CARMAN.

American Education Week

SO successful was last year's observance of American Education Week, inaugurated by the American Legion to emphasize the place of education in a democracy, that this year our country's two greatest educational agencies—the United States Bureau of Education and the National Education Association — are co-operating with the American Legion in securing for the movement nation-wide publicity and observance. In addition, 106 other national organizations engaged in educational and civic work have responded to the invitation to co-operate.

The week begins on Sunday, December 3, and continues through Saturday, December 9. For each day a definite topic is assigned and keynote slogans are suggested. The following program was prepared jointly by the Legion, the N. E. A. and the Bureau of Education, and was purposely made general in character in order to lend itself readily to such adaptation and modification as the needs of the various localities and organizations may dictate.

For God and Country

SUNDAY, DECEMBER 3, 1922

1. Education in the home.
2. Education in the school.
3. Education in the church.

Slogan—*A Godly nation can not fail.*

American Citizenship Day

MONDAY, DECEMBER 4, 1922

1. Children today, citizens tomorrow.
2. Naturalization for all men and women.
3. Help the immigrants to become Americans.
4. The duties of citizenship.

Slogans—*American all by 1927.*

Visit the schools today.

Patriotism Day

TUESDAY, DECEMBER 5, 1922

1. The flag—the emblem of freedom.
2. Music as a nation builder.
3. Universal use of the English language in the United States.
4. The citizens' duty to vote.

Slogans—*Visit the schools today.*

Patriotism is the basis of a happy nation.

School and Teacher Day

WEDNESDAY, DECEMBER 6, 1922

1. The necessity of schools.
2. The teacher as a nation builder.
3. The schools' influence on the coming generation.
4. America as an educated nation.

Slogans—*Visit the schools today.*

Better trained and better paid teachers, more adequate buildings.

Illiteracy Day

THURSDAY, DECEMBER 7, 1922

1. Illiteracy as a blot on our nation.
2. No illiteracy in 1927.
3. A citizen's duty toward the uneducated.
4. No immigration until illiteracy among native and foreign-born is removed.

Slogans—*Let every citizen adopt and teach an illiterate to read and write.*

Visit the schools today.

Equality of Opportunity

FRIDAY, DECEMBER 8, 1922

1. Equality of opportunity in education for every American boy and girl.
2. Rural schools—City schools.
3. High schools—Colleges.
4. American institutions.

Slogans—*Visit the schools today.*

Let all have an equal opportunity for education.

A square deal for the country boy and girl.

Physical Education Day

SATURDAY, DECEMBER 9, 1922

1. Playgrounds.
2. Physical education and hygiene.
3. The great out-of-doors.
4. The country's need in conservation and development of forests, soil, roads and other resources.

Slogans—*A sick body makes a sick mind.*

Playgrounds in every community.

Athletes all.

Facts for American Education Week

The National Education Association urges every teacher to arm herself with definite facts bearing on the educational questions that will come before the nation during American Education Week. The following statistics on some of the subjects included in the program deserve close and thoughtful study.

They were marshaled by the research department of the N. E. A.

Help the Immigrants to Become Americans

1. The number of foreign-born residents in our population is increasing. As shown by the Federal Census, the facts are as follows:

1880	6,700,000
1900	10,300,000
1920	13,900,000

2. In 1920 the number of foreign-born who had had no schooling whatsoever in any language, and who totally lacked the ability to read, was 1,763,740.

3. In 1920 the number of foreign-born who could not speak English was 1,488,988.

4. In 1920, 36,398,958, or 34 per cent, of our population were either foreign-born or were the offspring of parents one or both of whom were foreign-born.

The Nation's Physical Incompetence

1. During the World War 4,650,500 men served in the United States Army, and 1,340,623 were rejected from general military service because of physical disability.

2. Twenty-nine per cent of our young men physically unfit to fight for their country! More than one man in every five between the ages of twenty and thirty, when a man is supposed to be at his best, physically incapable of meeting his country's call!

3. The annual national loss from preventable diseases in our working population is \$1,800,000,000. There is experimental basis for the statement that this loss could be materially reduced and leave a balance above the cost of prevention of at least \$1,000,000,000 a year.

4. "Gross ignorance of the simple rules of health and hygiene" costs the nation each year a sum nearly twice that spent for public elementary and secondary schools.

The Teacher as a Nation Builder

1. A recent estimate shows that only one-fifth of the teachers of the nation have an education equal to the standard of preparation recognized in all civilized countries as constituting the barest minimum for elementary school teaching.

2. Our teacher-training institutions prepare but a fraction of the number of new teachers needed every year.

3. A sufficient number of teachers can be obtained each year only after the bars are let down and thousands of immature, untrained transients are granted "temporary" certificates to teach.

4. There were 40,000 teachers who during the school year just ended received a salary of less than \$500; 8,000 teachers received less than \$300.

The Reconstruction Period as a Test of Education

Editorial Contribution by WILLIAM C. BAGLEY

THE critical character of the era through which the civilized world is now passing is universally conceded. Post-war periods throughout the course of history have been critical. Almost always they have been periods of reaction, and in this respect history today is clearly repeating itself. They have also been periods of internal dissension within the nations concerned—and here, too, the present era “runs true to form.” Both reaction and internal dissension mean at least a temporary set-back of the forces that make for progress. One important question today is how far the retrogressive forces will swing before the tide turns in the direction of progress; a second important question is whether a stable equilibrium can be gained without further bloodshed, or at least without another world war.

CLEAR it is that the years ahead will be a test of social institutions and particularly a test of democracy. As a test of democracy they will perhaps be first of all a test of universal education as the primary condition of an effective democracy.

THE war undoubtedly weakened the faith of many people in the virtues of education. On both sides of the conflict were nations that had developed far-reaching systems of elementary and higher instruction. By common consent the guilt of the war rests most heavily upon the nation whose schools were regarded in pre-war days as the most highly organized and on the whole the most efficient. Even those whose faith in education is still unshaken cannot fail entirely to appreciate the attitude of others who point out that teaching every one to read and write apparently does not solve the whole problem.

AN explanation—and, we believe, a convincing explanation—of this apparent failure of education is to be found in the fact that, like other powerful forces, universal education can be used for bad purposes as well as for good purposes. Indeed, the nation that has the best school system may have for that reason alone a decided advantage in attempting to gain unworthy ends. The power of universal education was pretty conclusively demonstrated by the war—but, in Germany's case, it was education directed toward an unworthy end.

WHETHER or not one accepts this explanation, the universal school, even if it be far from perfect, is still to be reckoned with as a positive and bene-

ficial force if the experience of the nations since the Armistice gives us a basis for judgment. Even the briefest survey of the situation today is convincing evidence of this.

LET us consider first the case of the European belligerents on the side of the Allies. Just before the war, these nations ranked in the following order in respect to the per cent of the total population enrolled in the elementary schools—a fairly good index of the attention that a nation gives to the education of its masses: Great Britain, France, Belgium, Greece, Italy, Rumania, Portugal, Serbia and Russia. The proportions ranged from 16.7 per cent in Great Britain to less than 3 per cent in Russia. Viewed from any angle, the rank of these countries today in respect to social stability, economic stability and promises of progress is not essentially different from their educational ranking in 1914. It is the educationally backward nations in this group that have had the most serious internal troubles; it is they that have today the lowest exchange-rates; it is among them that the future is most uncertain.

A SIMILAR situation is revealed by a comparison of the European neutrals. By the same standard of per cent of total population enrolled in the elementary school, the neutral nations ranked in 1914 in the following order: Norway, Holland, Switzerland, Sweden, Denmark and Spain. The differences among the first five were not great, and in comparison with other nations all ranked high; but Spain was distinctly backward educationally, and although Spain suffered less from the war than did such maritime neutrals as Norway and Denmark, her post-war economic depression has been severe, and her internal affairs so troublesome that since 1918 she has undergone five cabinet crises.

ESPECIALLY interesting is a comparison of the new nations created from the dismembered empires of eastern and central Europe. The four most important of these are Czecho-Slovakia, Jugo-Slavia, Poland and Finland. In two of these countries universal education was well-established long before the war; today these two countries—Czecho-Slovakia and Finland—are far more stable economically (note their relatively high exchange-rates) and apparently much freer from internal dissensions than are their companions among the new nations. Probably no country of central Europe is in so promising a condition

today as is Czecho-Slovakia. Is this purely accidental, or has the tradition of the gentle Moravian preacher, Comenius, something to do with it—a tradition of universal education kept alive for three centuries, with the result that illiteracy in three of the five provinces from which this new nation was formed has been almost unknown for generations?

EVEN among the belligerents on the side of the Central Powers, there are evidences that the universal school, turned though it was toward an unworthy purpose, contributed elements of strength to the German people that are now standing them in good stead. Desperate as are the economic straits in which Germany now finds herself, the situation is infinitely better than would be conceivable had Germany to deal with illiterate masses like those of Russia; and among the Central belligerents themselves, if we leave out Turkey, the present relative position of the different countries—Germany, Austria, Hungary and Bulgaria

—is precisely what their relative standing on the pre-war educational scale would have led us to predict.

HOW the events of the next two or three decades will affect the nations of the world it would be foolish to prophesy; but if the critical four years that have elapsed since the Armistice give us any criterion whatsoever upon which to base a prediction, we can be fairly certain that the nations that have the best schools today will pass through the remainder of the reconstruction period with the least peril. There will be "trouble enough" beyond doubt for all. Much of this cannot be foreseen and hence cannot be averted; but if education does anything for a people it should certainly enable them to meet new and unforeseen difficulties more successfully than would otherwise be possible. Mass-education has apparently justified itself so far by this test. It is conceivable that the improvement and extension of mass-education could do much to reduce these crises both in number and in intensity.

Motion Pictures and Public Health

ALIVE interest in visual education was expressed by public health authorities at the recent meeting of the American Public Health Association in Cleveland. A luncheon at which the subject of health motion pictures was featured was largely attended. Prof. C. E. Turner, of the Department of Biology and Public Health, Massachusetts Institute of Technology, officiated as chairman, and brief addresses were made by Dr. H. E. Kleinschmidt, of the American Social Hygiene Association; Dr. B. Franklin Royer, of the Halifax Health Commission, and Mr. Walter Clark, of the National Health Council.

Dr. Kleinschmidt showed a number of devices and models which could be used effectively by health officers in illustrating lectures, thus conveying visual impressions of the facts under discussion. Dr. Royer gave some interesting and significant figures relative to the use of

different types of instruction with Nova Scotia school children. In an experiment involving still pictures, story-telling and motion pictures, the film proved by far the most effective medium.

Mr. Clark outlined the work of the Health Films Committee of the National Health Council. This committee has prepared a list of public health films and is studying the problems of future need, production and distribution. Mr. Clark's talk was followed by a general discussion in which city and state health officers, educators, and representatives of private organizations took part. There was enthusiastic agreement upon the need for more films dealing with public health subjects, and upon the high value of the motion picture as offering the most telling method of public health education.

Dr. Coombs, of the Maine State Department of Health, brought out a new and striking use in telling of

his marked success in the use of films on diagnosis, treatment and technical procedure in the office of the private physician. A non-inflammable film and a portable motion-picture machine make this possible. Why is not this just as logical as the salesman's use of a motion-picture machine for interviewing a single customer?

The difficulties in the way of making new health films arise from the fact that individual health organizations can neither bear the heavy initial cost of production nor market the film after it is produced. The gathering informally expressed the hope that the Committee on Motion Pictures of the National Health Council might further the development of a plan whereby public health agencies should co-operate in the development of a satisfactory scenario and underwrite the production of motion pictures which could be used by all.



Vocational Department

ONE-HALF of every active person's waking time is devoted to vocational activities, and therefore it is obvious that "a school which bears any relation whatever to the improvement of life should not neglect the vocational implications of its curriculum."

Thus declares Dr. John M. Brewer of Harvard, writing in *American Education* on the subject of "A Vocational Guidance Program Which Any School Can Adopt."

It is important that the teacher should, in teaching arithmetic, writing, spelling, history, literature, geography and the rest, bring out vocational implications in the work. If she will look out into her community, she will see oral and written English being used by persons in their jobs. She will avoid the mistake, therefore, of making the school work in English relate itself wholly to fairy-tale or leisure-time activities. She will show how books are used in connection with work as well as for purposes of fiction.

In arithmetic she will gradually work up a series of projects related to the actual life of the community. She will show the importance of clear writing, effective speaking, correct spelling, and approved grammar in vocational relationships. She will think of geography as a study of how man uses natural resources to meet his needs and how most of those who use geography use it in connection with their jobs. In short, she will relate the curriculum to life, realizing that vocational life, though not the most important thing in the world, is at least fundamental and that it necessarily looms large in the interests of all sorts and conditions of men.

Once children are trained in this attitude toward their school work, they will be in a better position to discover their vocational interests and aptitudes because they will look upon their studies "in the light of their own present and future relations to the work of the world."

So far as the strictly manual subjects are concerned, Dr. Brewer offers the statement that "two-thirds of the population earns its living through work with its hands."

It seems obvious that any form of education which wholly neglects hand work as a part of the actual teaching of and learning by children is in part, at least, the kind of schooling which might be characterized as education in a vacuum. . . . Unless the rural school raises up a new generation better able to cope with agricultural problems, with the organization of rural stores, with transportation difficulties, it is not fulfilling its duty. If the city school does not make its generation better able to deal with questions of labor, with strikes, factory life, and the rest, then we are committing the cardinal sin of creating a new generation in the image of our own.

After suggesting a plan whereby the most limited rural teacher, having collected a simple outfit of tools for classroom use, may make a small beginning in vocational work through school repairs, school gardening, electric bell wiring, cobbling, and similar simple projects drawn from home and farm, Dr. Brewer takes up the vital need of discussing with pupils the common occupations that offer employment in the particular locality affected.

I should take the Census list or the voting list for my community and first select the most numerous represented occupations. I should then ask each child to write down three occupations in which he is especially interested. On the basis of these two lists I should make up perhaps fifteen or twenty common occupations to be discussed each half-year, selecting the list with due representation given to each of the major phases of human work—perhaps two from agriculture, one from commerce, three from industry, one or two from professions, and one each from the other groups.

For some condensed studies in the field of agriculture and a proposed outline for the discussion of all occupations, you are referred to Mr. Frederick J. Allen's recently issued pamphlet called "Studies in Agriculture."

When it comes to actually choosing the vocation, Dr. Brewer points out that the child who has had these rich opportunities of studying various occupations and of learning a method of analyzing the characteristics of any given vocation, is fairly well qualified to make a tentative choice as to his life investment.

A REPORT prepared for delivery before the Michigan Rural Society by George N. Otwell, State Superintendent of Rural Education, J. M. Hover, Associate Professor of Agriculture, Michigan Agricultural College, and Fred Fisher, Deputy Commissioner of Schools, Wayne county, has just made its appearance in *Moderator-Topics*. It is a pleasure to quote the following extracts for this department:

Vocational education is not a new thing. The Jewish Talmud said, "He who does not teach his son a trade prepares him to be a robber. As it is your duty to teach your son the law, teach him also a trade." . . . The great educators, Comenius, Rousseau, Pestalozzi and Froebel, all advocated the constructive instinct as a means of education. Their theories were the basis of manual training, which was the forerunner of vocational education in our schools. . . .

A few years ago it was found that the city of Chicago was spending more money for tuition to provide trade and commercial schools than was being spent for secondary education in the public schools. This proved that in the minds of the people pupils were not getting the subjects they needed in the public schools, or too long a time was required in getting those subjects. . . . No subject was ever placed in the school curriculum for which there was not a demand on the part of society. . . .

There is at the present time a growing and insistent demand that vocational subjects be included in all our school courses. It is of vital importance that pupils be taught to think, but it is an absolute necessity that pupils be taught to work and to make use of the knowledge they gain through formal studies. . . . Every individual should be able to earn a decent living honestly and at the same time make a life that is worth earning a decent living for. To accomplish this result through our public schools there must be vocational instruction included in the course of study.

IN DISCUSSING the difficulty employers meet in securing intelligent boys to serve as machine-shop apprentices and undergo the practical training that will make them skilled machinists, J. J. O'Brien, president of the South Bend (Ind.) Lathe Works, expresses the opinion that "one of the most effective tools in the hands of the vocational guidance expert would be a series of motion pictures visualizing the various mechanic trades."

By way of illustration, he outlines a scenario for a film on the machinist's trade which he declares would serve to acquaint any boy with the details of the work, at the same time giving him definite ideas of the advantages of the trade, not only from the viewpoint of earnings but in such matters as independence, dignity of work, opportunities for travel, advancement to foreman's position, etc.

In these days no one questions the power films of this type would have to make their deep impressions on the plastic mind of the young boy; to give him a general idea of the character of the different trades; to help him decide intelligently what he really wants to do when he leaves school, in the event he is unable to continue his formal education; to keep him from wasting the important years of his novitiate in industry on a job which can yield him little or nothing in the way of useful training in the present or hope of advancement in the future. . . .

Practical visualizations of this kind, placed before the boys at an age when they are beginning to think seriously about their future vocations, will do more for intelligent vocational guidance, and afterward for vocational and industrial training in the schools, than any other available plan; and they will achieve this result with a minimum expenditure of effort and time.

Vocational education and visual education are logical partners in carrying forward the big task of equipping for the great business of life that eighty-five per cent of boys and girls who enter the industries.

CEDAR RAPIDS' superintendent of schools for the past twenty years—J. J. McConnell—was recently appointed state head of vocational education in Iowa. In this capacity he will have charge of all activities of the Iowa State Board for Vocational Education, which includes vocational education in agriculture, trades, industries, home-making, and industrial rehabilitation.

In connection with Iowa's Rehabilitation Service for the civilian disabled, the current number of *Midland Schools* describes this work as "on one side an extension of the educational facilities of the state to a particular group, and on the other a practical philanthropic measure to reduce dependency.

"Disabled persons, both men and women, of employable age are entitled to the benefits of this service, without regard to how they became disabled. It is a preventive measure, and every effort is being made to combat the suggestion that one must be a pauper to become eligible to this aid. The self-respect so necessary when a physically handicapped person makes a successful fight for independence must be preserved. The test of eligibility is the extent of the physical handicap, and such words as 'deserving' and 'worthy' are out of place in this connection. The entire emphasis should be placed on the opportunity offered for self-help."

A PAMPHLET containing concrete suggestions and simple lessons in social science, prepared with the idea of giving high school and industrial classes an intelligent understanding of what it means to get a position, has been published by the Vocational Education Association of the Middle West. A copy is available to all interested on remitting twenty cents to L. H. Wahlstrom, 1711 Estes Avenue, Chicago.

HOW do you visualize your job? The story of the three stonecutters leaves nothing of wisdom to be said. They were working on a stone. A stranger asked the first what he was doing. "I'm working for \$7.50 a day," he replied. "And you?" the stranger asked the second. "I'm cutting this stone," growled the laborer. When the question was put to the third stonecutter, he answered, "I'm building a cathedral."—*The Christian Register*.



Projection Queries & Answers

Readers are invited to address queries on practical projection matters to Projection Department, care of VISUAL EDUCATION

What causes motion pictures to vibrate up and down on the screen?—

R. H. O., ELGIN, ILLINOIS

Vibrations of motion pictures may be due to one or more of four different causes. When it is recalled that at normal speed sixteen pictures are projected per second, the wonder is that they can be made so steady.

The first cause of possible unsteadiness in motion pictures is in their taking. Every one knows that an ordinary camera must be kept still while a picture is being taken. It is the same with a moving-picture camera, although the effect of motion in the two cases is different. In the case of a still camera,

cessive parts of the film in front of the lens. When it is remembered that sixteen frames per second are brought before the lens and stopped while the exposure is made, the difficulty of avoiding all vibration can be realized. In spite of the difficulties, careful operators using good cameras secure practically perfect results.

The second cause of possible unsteadiness in a motion picture is the unsteadiness of the projector. If the projector is on a shaky support the picture will jump about on the screen. It follows that the projector should always be placed on a rigid and secure foundation.

The third cause of unsteadiness is imperfections in the sprocket that pulls the film forward, frame by frame, into line with the lens. Suppose the film is pulled one-hundredth of an inch too far because of defects in the sprocket. The results are magnified so much that on a 9x12 screen the picture will be displaced one and one-fifth inches. Hence the intermittent sprockets must be made with the greatest possible precision. In buying a projector the accuracy of the machine work should be carefully considered.

The fourth, and most common, cause of unsteadiness is that the sprocket holes may be worn and torn. The result is the same as that produced by an imperfect sprocket, except that defective sprockets produce the same results over and over again, while worn films produce irregular motions.

The conclusion is that in order to get good results on the screen (1) the pictures must be well taken, (2) the projector must have a steady support, (3) the sprockets of the projector must be accurate, and (4) the sprocket holes in the film must not be badly worn. The last of these is the most frequent cause of trouble, and explains why worn-out theatrical films are so often unsatisfactory.

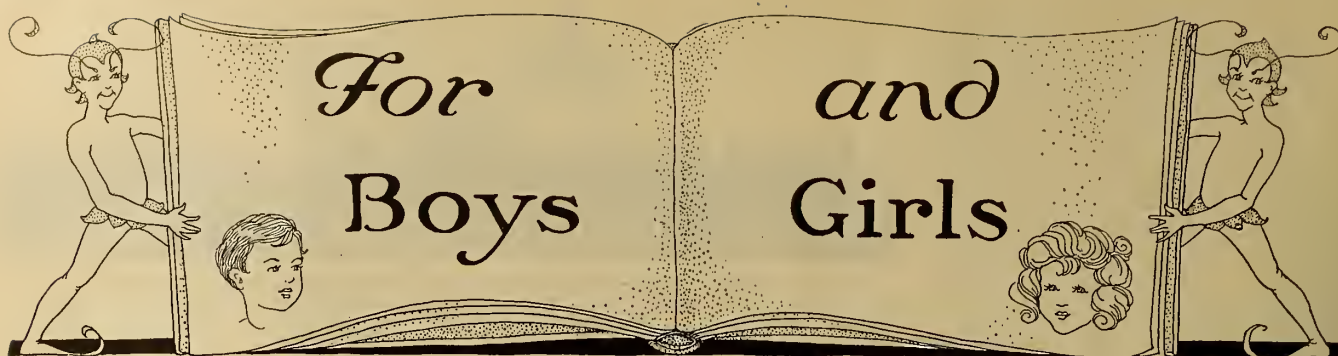
—F. R. MOULTON

Comenius characterized the schools of his day as "slaughter-houses of the mind . . . where ten or more years are spent in learning what might be acquired in one . . . places where minds are fed on words."

He used dramatization in teaching and introduced the first illustrated textbook into the schoolroom. Even before this he had advocated that the walls of the schoolroom be covered with pictures.

With justice indeed is Comenius called the "pioneer of modern educational science."

motion during the exposure blurs the picture. In the case of a motion-picture camera, motion causes the successive pictures to be taken on slightly different parts of the "frames" in which the successive pictures appear. Then when the pictures are projected they seem to move. It is difficult to keep a motion-picture camera perfectly still, because the operator turns a crank which runs the interior mechanism that moves suc-



Timothy's Quest

*The Kate Douglas Wiggin story everybody loves,
retold for boys and girls from the film version*

"I REALLY think we'll have to make a *picture prayer*," Miss Dora had told Timothy and Lady Gay; and in answer to their look of wondering inquiry, their "pretty lady" had gone on to explain:

"A picture prayer, you know, is making a picture of what you want. Then, if you think about it long enough, it will come true."

At this hour, long past midnight, Timothy is thinking very hard about Miss Dora's words. He has crept out of bed to listen to the neighbor women in the next room as they cold-heartedly dispose of his future and little Lady Gay's. Flossie, the woman of the slums under whose care the children have been living, has just died, and they are once more alone in the world.

"The thing to do is to get rid of 'em both as quickly as possible," Timothy overhears. "Tomorrow we'll take the girl to the Ladies' Relief and Protection Society. The boy can go back to the orphan asylum."

The word "asylum" strikes terror to Timothy's heart. He is only ten, but his earliest years were spent in a "Home," and he is very positive that he does not want to repeat the experience, much less allow blithe, sensitive, three-year-old Lady Gay to share its bitterness.

He thinks again of Miss Dora and her "picture prayer." In his mind's eye he sees himself sitting outside a little white farmhouse with a white fence, a white cow and a white cat attached, and a mother's loving arm holding him close.

"Dear God," he prays, "give us a 'dopted mother for Gay and me, if the lady will take me too—but not unless. Amen."

This prayer speeded on its way, Timothy loses no time in getting into action. He arouses the sleeping girl, quietly makes a bundle of their few be-

longings, packs them and Gay into an old wash-basket on wheels, and tiptoes out of the house. "Rags," a dog of better manners than pedigree, joins the little procession a little farther on, and just as the day is dawning the three run-aways stow themselves comfortably in an empty box-car.

Late that afternoon the train stops at a lonely place which the sign over the depot calls "Pleasant River." The children climb out. It is a typical New England village, all green and white and tidy. Timothy and Gay enlist the aid of a convenient pump in order to make themselves harmoniously spick-and-span as to face and hands, in spite of their ragged clothes.

Along comes Jabe Slocum, a typical Maine Yankee, driving as though no such word as "hurry" was in the dictionary. Gladly they accept his offer of a lift. When Timothy gravely announces the object of his quest, Jabe remarks doubtfully:

"Waal—this village is chuck-full of old maids, and they ain't much on adopting children." But Timothy refuses to be discouraged. Has he not made a picture prayer of a white house and a white fence, a white cow and a white cat, and a kind-faced mother in the foreground?

Jabe suddenly recalls a passenger he was to have picked up, and the children are left to continue their journey on foot. Timothy's heart pounds with excitement as a large house, set among neat grounds and fields, comes into sight. For the house is white—the fence is white—there is a white cat and a white calf—and although it is a big house and not the little one of his dreams, and although the cow turns out to be black, Timothy is prepared to make a few alterations in his demands. Besides, a kind-looking lady sits at the window. Surely this must be the home

God has in mind for him and Lady Gay.

Suddenly, as they cross the lawn, a white stone stands in their path. Stooping, Timothy reads: "Martha Cummins, Age 17." The children are puzzled. Then: "It must be a country door-plate," Timothy finally decides, and they make their way to the front door.

"Do you need any babies here, please?" he asks of the stern, angular spinster who comes to the door. So sweetly and appealingly does he look up into her eyes, you wonder how she can possibly help letting just the *littlest* smile steal out to warm her frozen features. But on Miss Avilda Cummins' iron face not a muscle moves. Timothy tries a second question:

"Does Miss Martha Cummins live here?"

Now, indeed, the expression changes on the spinster's hard face! Only, the look of pain makes it seem even crosser than before. Unconsciously Timothy has touched an open wound. In all these years, Miss Avilda has never been able to forget her own harsh treatment of the little sister who went to the city and made the acquaintance of sorrow.

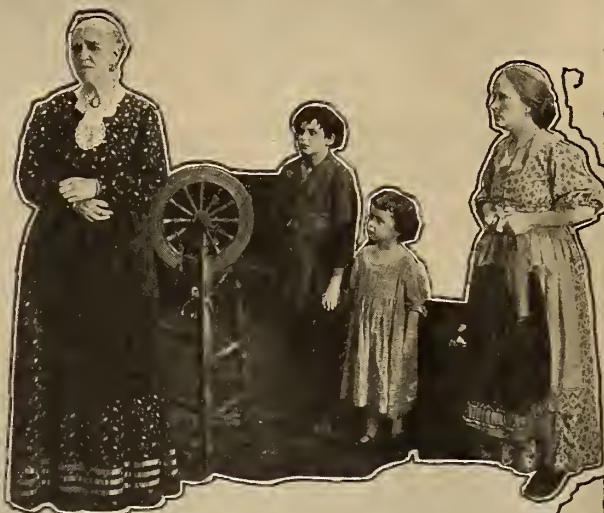
"What do you want?" she asks.

"I want to get somebody to 'dopt my baby. You needn't 'dopt me or Rags—'less you should want us to take care of her, of course."

"You go right home, where you belong! I don't want to adopt any children or dogs this afternoon."

But now another spinster appears in the doorway—the same sweet-faced lady Timothy had seen from the gate.

"Land o' liberty!" exclaims Samantha Ann Ripley, Miss Avilda's "help" and old-time friend. "Where do they come from, and what are they trying to act out?"



It does not take Samantha long to understand that Timothy is begging food and shelter for a very hungry, frightened little girl whose baby face is now bathed in tears—and Samantha is not one to waste time.

"Land o' liberty! Come along o' me!"

In a twinkling bowls of cool milk and piles of home-made bread are set before the famished children. Returning to the kitchen for further supplies, Samantha stops a moment to look pityingly at Miss Avilda, who stands gazing down at the stone under which her sister sleeps. Old, bitter memories have indeed been awakened this day!

"Poor Avildy!" she exclaims to Jabe; "she ain't never going to forget that poor, worthless sister o' hers."

"Not until she learns to forgive her," comes Jabe's unexpected reply.

Since it is nearly dark, Miss Avilda grudgingly agrees to let the children stay overnight. It is clear, however, that she is not happy to have them there; there is something about Timothy's eyes that reminds her of the past. But Samantha leads the way to the attic, and out of dusty trunks brings forth

old-fashioned clothes for the little guests.

"If you don't like it," she flings at Miss Avilda, watching her disapprovingly from the doorway, "I'll tell Dave Milliken I'll come and keep house for him—so there!"

Under this threat Miss Avilda keeps silent. Years ago Dave had been Samantha's lover and talk of a wedding was in the air. But when Martha died and Miss Avilda "took on" so, and so plainly showed her need of companionship, Samantha loyally postponed the marriage. Dave, jealous that his sweetheart should put Miss Avilda's claim ahead of his, spoke bitter words that could not be unsaid. Samantha vowed she never would marry him now, just because he had been so unreasonable. And so all these years the lovers have lived within a stone's throw of each other, lonely and unhappy, but both too proud to admit it.

While putting the children to bed, Samantha asks Timothy what made him ask if Martha Cummins lived there. He explains, and then inquires innocently:

"But if a tombstone says who's buried under it, then it's a door-plate to Heaven, isn't it?" And Miss Avilda, listening at the door, feels a lump rise in her throat.

Early the next morning Miss Avilda catches a train for the city. She is determined to hunt up Timothy's old home and see whether she can discover any clue to the children's identity. She finds no clue, but she does bring away with her a picture of the "sink of iniquity" from which these little ones have fled. With that picture painted indelibly on her mind, do you think her New England conscience will ever allow her to send them back to so much evil and squalor?

When Miss Avilda returns to Pleasant River, no Jabe is there to meet her at the depot with the rig, and when she reaches the farm on foot she finds her hired man engrossed in play with the children.

"Gorry!" he exclaims, apologetically, "I clean forgot you—but I l'arned the children lots this morning! They're green as Paddy's cow!"

Miss Avilda, however, looks so severe that Timothy speaks up: "Please, Miss Avilda, don't scold Jabe; he's been awful good to us!"

Somehow, that manful defense appeals to Miss Avilda.

"You've got a lot of spunk for a little boy, Timothy," she says, and her voice is almost gentle. "Suppose you see if you can't get work somewhere, so you can be near Gay."

Gratefully and obediently the boy trudges away to canvass the farms nearby, and Lady Gay, who has long since snuggled her way into the spinster's reluctant heart, brings handfuls of field daisies with which she trims Miss Avilda's sober gray head.

"Since when have you taken to wearing flowers, Vildy?" giggles one of the village gossips, coming unexpectedly upon the little group.

"If I want to be a fool for once in my life," retorts Miss Avilda, maintaining her dignity in spite of the flowers that stand out at absurd-looking angles from her stern face, "it ain't anybody else's business, so far as I can see!"

Meanwhile, Timothy has found no encouragement. Apparently there is no demand for a boy hereabouts. Dispirited, he knocks at one more door—the door of a little house that shows how much it needs some one's loving care. There is no answer, but the boy hears a low cry and, guided by that moan, makes his way to an upstairs room. On the bed is a man crying, "Samanthy! Samanthy!" Startled, wondering, Timothy gives one look and then rushes to find the ever-helpful Jabe.

A CHRISTMAS HYMN

It was the calm and silent night!
Seven hundred years and fifty-three
Had Rome been growing up to might,
And now was queen of land and sea.
No sound was heard of clashing wars—
Peace brooded o'er the hush'd domain:
Apollo, Pallas, Jove, and Mars
Held undisturb'd their ancient reign,
In the solemn midnight,
Centuries ago.

'Twas in the calm and silent night!
The senator of haughty Rome,
Impatient, urged his chariot's flight,
From lordly revel rolling home;
Triumphal arches, gleaming, swell
His breast with thoughts of boundless sway;
What reck'd the Roman what befell
A paltry province far away,
In the solemn midnight,
Centuries ago?

Within that province far away
Went plodding home a weary boor;
A streak of light before him lay,
Fallen through a half-shut stable-door
Across his path. He pass'd—for naught
Told what was going on within;
How keen the stars, his only thought—
The air how calm, and cold, and thin,
In the solemn midnight,
Centuries ago!

O, strange indifference! low and high
Drowsed over common joys and cares;
The earth was still—but knew not why
The world was listening, unawares.
How calm a moment may precede
One that shall thrill the world forever!
To that still moment, none would heed,
Man's doom was link'd no more to sever—
In the solemn midnight,
Centuries ago!

It is the calm and solemn night!
A thousand bells ring out, and throw
Their joyous peals abroad, and smite
The darkness—charm'd and holy now!
The night that erst no shame had worn,
To it a happy name is given;
For in that stable lay, new-born,
The peaceful Prince of earth and heaven,
In the solemn midnight,
Centuries ago!

—ALFRED DOMMETT

"Tell Samantha, but not before the rest of 'em," warns Jabe.

Now arrives a delegation from the village to inquire what Miss Avilda intends to do with these children that have wandered into her home.

"Any one of our good sisters present will be glad to board the little girl if you will pay for her clothes," the minister declares.

"I am thinking of adopting her myself, board, clothes and all."

"But what about the boy?"

"I intend to send the boy to the State Home. There's boys enough in this village already."

No one sees him, but just as these words are uttered Timothy, intent upon telling Samantha about the sick man in the little house, reaches the open door. A great sadness comes over him. His quest must begin anew. Quietly he slips away upstairs to say good-bye to Lady Gay and give her a note for Samantha. How it would warm his lonely little heart could he only hear Samantha this very moment, as she says:

"That blessed boy ain't goin' to any home! I ain't a pauper. I've saved enough to keep him myself. It was the hand of the Lord that made him pass up all those other houses and come here. There is other kinds of miracles besides budding rods, Avildy Cummins!"

But Miss Cummins has begun to understand a few things for herself.

"I have been a hard woman," she confesses. "When I think of poor little Martha, so young and confiding, and all alone in a big city—" and wildly she presses to her bosom the little dress she is sewing for Lady Gay.

At this juncture Jabe enters with the news that Timothy has run away, and Lady Gay, sobbing for her lost playmate and protector, comes stumbling into the room and puts Timothy's note into Samantha's hands.

The sick man in the little house says Samantha, Samantha. Jabe says not to tell you in front of Miss Avilda.

Samantha is off like a flash to answer Dave's call, while Miss Avilda and Jabe take up the search for Timothy. It isn't they who find him at last, however, asleep in the grass just off the main road, but Rags, his faithful dog. But it is Miss Avilda who cries:

"Timothy! Timothy! I want you—and I need you!"

Thus ends Timothy's quest—in the finding of a 'dopted mother and a real home for Gay and himself, with a white fence, and a white cat, 'n ever' thin', and the spirit of love to bind them all close.

"... and they forget past unhappiness because of present joys—and this is the eternal miracle of love."

How About Your Christmas Picture-Story?

WHEN Christmas Eve comes, will your booklet or poster telling Hans Christian Andersen's story of "The Fir Tree" be on the editor's desk? Many have already arrived.

Have you begun work on the interesting "visual contest" in which our November number (page 370) invited you to take part?

If not, there is still time to get busy and have a try for the cash prizes. The time is not *very* long, however, for the Chicago postman must bring your contribution before Christmas Day dawns.

If you know how to make pictures tell a story—whether they are pictures of your own making or pictures which you have borrowed from books and magazines—you ought to be among the prize-winners, or at the very least one of those who will receive Honorable Mention in the February number.

You will find it a mint of fun to find or draw pictures of all the little actors in "The Fir Tree"—the bunnies and the storks, the little mice, the wise old rats and the singing birds. To every one of these creatures Andersen gives the power of human speech, just as fairy-tale writers have always done since the world's first little boy begged, "Please tell me a story!"

Here is *your* chance to tell a story in the magic language of pictures—a language that all the world understands.

Send your picture-story, then, to the Contest Editor, care of VISUAL EDUCATION, 806 W. Washington Blvd., Chicago, and let a separate slip contain your name, address, age, grade, school, and the signature of teacher or parent.

And in the meantime, Merry Christmas to you all!

An Infernal Gentleman

Small Ann's mother had been disturbed to hear her using the word "devil."

"My dear," said she, "that is a word we do not use in polite society, and I never want to hear you say it again."

She noticed that her admonition was carefully heeded. Then on Sunday evening, about two weeks later, the mother inquired what the day's lesson had been about.

"Why, mother," was Ann's answer, "it was about when our Lord was tempted by the—by—the—the *gentleman that keeps hell!*"—*Normal Instructor.*



BABY PEGGY IN "JACK AND THE BEANSTALK"

Aren't you glad to have for your "movie album" this cunning picture of Baby Peggy as the Giant-Killer? The film is not yet finished, but it is one you will all want to see when it comes to your neighborhood theater. No wonder Peggy looks tiny—she has only just celebrated her fourth birthday, while the giant is a really-truly one, 7 feet 3 inches tall!



The Films in Review

OLIVER TWIST

DISCUSSION of this most recent film version of "Oliver Twist" is concerned more with the achievements of its miniature star than with the presentation of a classic.

Readers are divided into two classes: those who like Dickens and those who dislike him. There seems to be no half-way ground. But whether or not his pages hold a spell for you, you will appreciate the *OLIVER TWIST* of little Jackie Coogan. He is a genius. There are other children on the screen with as much charm and appeal, but there is no other with his genuine ability. He has the rare power of identifying himself with his role. He can bring out subtle distinctions of expression and fine shades of meaning in a manner worthy of the most experienced actor. And, since the role of Oliver Twist is what is

flippantly termed "sob stuff," he pulls on your heart-strings with merciless frequency.

The chief criticism to be made of his performance has to do with his personal appearance. One thinks of Oliver Twist as having been a larger and older lad. And surely he was not so plump and rounded and altogether healthy-looking as little Jackie. Skillful use of make-up could easily have supplied the lines of hunger and abuse necessary for absolute realism.

There is that flame within him, however, which enables him to overcome any handicap. If the years are kind, this young celebrity assuredly has a career before him.

The play itself is carefully done and is loyal to the book. Here and there it unites incidents and shortens up a bit, but Dickens is so prolific of detail

that such a process was undoubtedly necessary. One notices this quickening of tempo in the attempted capture of Bill Sikes. In the story Dickens allows some days to intervene between the murder of Nancy and Sikes' death which he uses to present a keen study of physical and moral disintegration. In the film the one event follows hard upon the other.

The characterizations are clean-cut. Lon Chaney, that man of the plastic countenance, presents the role of Fagin. One feels sometimes that Mr. Chaney overdoes the grotesquerie of his make-up. His acting, however, is most capable; he quite grips one as he is led away to prison in hand-wringing misery.

Bill Sikes and several other characters fail to suggest the full extent of brutality and depravity that we find associated with them in the original, and the picture of the underworld is several shades lighter than that which Dickens drew. How far, one wonders, was the fear of the censor upon the producer as these modifications were decided upon? It is a wonderment that visits many a critic reviewing the screen version of a familiar classic, staying the hand that would catalog objections to what seems at first glance unwarranted meddling with the author's purpose and materials.

Released by First National.

TO HAVE AND TO HOLD

AFTER one has overcome the irritation engendered by seeing a familiar and an excellent plot suddenly rendered unfamiliar and distorted, one can enjoy the film version of "To Have and to Hold." As an historical pageant it can easily stand comparison with *WHEN KNIGHTHOOD WAS IN FLOWER*, or even, in some respects, with *ROBIN HOOD*.

The background is that of the court of James I of England and of the early English settlement in Jamestown. All the extravagance and lavishness of those days, which covered sinister ambitions and back-stair intrigues, are picturesquely presented. The director has, however, kept the picture from becoming a mere spectacle, as is too frequently the case with a costume film. Restraint and good taste have endowed the settings with realism and historical fidelity. Rarely can one find a more striking scene than that of the duel between Captain Percy and my Lord Carnal on the somber castle stairs.

The novel upon which the picture is based is a ripe romance of flavor and literary merit. Its characterizations are photographic gems from the seventeenth century: the foppish gallants; the



OLIVER TWIST

Vividly the screen brings to life pathetic little Oliver, poor Nancy, murderous Bill Sikes, crafty old Fagin, Toby Crackit, the "Artful Dodger," Monks, and all the various house-breakers, pickpockets and thieves who made up Fagin's gang. And we recall Dickens' own words: "I wished to show, in little Oliver, the principle of Good surviving through every adverse circumstance and triumphing at last."



TO HAVE AND TO HOLD

"Take care"—the fair Lady Jocelyn warns her Virginian husband—"my Lord Carnal is reputed the best swordsman in all England!" But what availeth a prettily handled steel against the charmed life which every hero bears?

grim, brave men who held a new world for an indifferent king; the swashbuckling pirates; the bond-servant; the regal lady of the court. One sighs to find the director tampering with these folk. The bond-servant—a fine study of loyalty and stubbornness—appears not at all. The stalwart minister, fashioned after Ben Jonson's own heart, becomes nothing more nor less than a nincompoop. And worst of all, the fair Lady Jocelyn Leigh, whose white hands a gentleman about to be spitted for her sake was fortunate to kiss, loses her queenly dignity. A sop, no doubt, to the movie fan, who must have "pep" though literature's heavens fall.

Bert Lytell handles the role of Captain Percy effectively, but is not allowed to bring out the full measure of his chivalry and devotion. Theodore Kosloff is an ideal Lord Carnal. He understands what he is doing. Betty Compson is beautiful in her blonde wig, albeit one wonders where is the dark hair of Mistress Jocelyn Leigh, upon which her pearl-bordered cap sat as lightly as a kiss.

It is perhaps unreasonable to demand faithfulness to a story rich in rapid action and dramatic situation when one is given a fine picture. But—why didn't they call the film by some other name?

Released by Famous Players-Lasky.

REMEMBRANCE

MOTION-PICTURE directors have sounded out the fickle taste of their cosmopolitan constituents with the sex-play, the romance of adventure, the mother theme, the erring son theme—with any theme calculated to

win the ducats. In *REMEMBRANCE* we have at last the father theme.

This picture, written and directed by the industrious Rupert Hughes, treats its subject intimately and tenderly. You recognize the various selfish members of the family as types with whom you daily rub elbows. Although you might not feel the same reaction yourself to a given situation, you know instinctively that the characters are conducting themselves in a normal manner, allowing of course for that inevitable amount of exaggeration essential to getting a situation across.

Much of the success of the picture is beyond doubt due to the personality and sincerity of Claude Gillingwater, who plays the part of the harassed father. This portrayal of tenderness and deep devotion concealed under a brusqueness of manner and a gaunt, shabby exterior is most effective. It is, in fact, lovable.

There is some running around in a storm that seems rather irrational, and there is considerable disregard of customary sickroom decorum. The note of the play, however, always keeps its true pitch. Odious as it is to pick a moral, one learns warmly how well it is to appreciate the efforts of our dear ones in our behalf. In short, be unselfish while you may.

More pictures like *REMEMBRANCE*, and those who carp at the drama of the screen will not be kept so busy.

Released by Goldwyn.



REMEMBRANCE

Rush, rush, rush—work, work, work—money, money, money! No wonder "Pop's" hair is white, his face carved with worry's furrows—and his tie careless and crooked! Claude Gillingwater deserves a public vote of thanks for his visualization of the harassed but loving father of a large and expensive family.



Keeping Abreast of the Screen

*Brief comments on current films for the
special information of parents and teachers*

Blood and Sand

Ibanez' novel is considerably toned down in its screen translation, but comes forth as good entertainment none the less, with decided "box-office values." Rodolph Valentino and Nita Naldi are superb as the toreador and his sensuous Doña Sol, the settings almost ostentatious in their perfection of detail, and the bull-fight scenes well done though not startling in their realism. It is almost superfluous to add that this is *not* a young person's picture. (*Famous Players-Lasky.*)

The Bondboy

A fine net of circumstantial evidence, coupled with his refusal to break an honorable silence, nearly sends Richard Barthelmess to the gallows. He does some very fine, restrained acting in this picture, as do the other members of the cast. It is a drama of bitter, mature passions. (*First National.*)

Brawn of the North

Just a fair picture, not beginning to approach Strongheart's first starring feature, "The Silent Call," in either quality or appeal. The performance of the "wonder dog," and the magnificently photographed background of the frigid North, are its chief attractions. The plot is ordinary and long-drawn-out and contains elements that tend to make the picture unsuitable for boys and girls—which is unfortunate, in view of the very genuine affection for Strongheart which was created by "The Silent Call." (*First National.*)

Broadway Rose

Mae Murray struts and grimaces through a number of harrowing incidents and Gold-Coast sets. The greatest ambition of those concerned with the motion picture as a dramatic art should be to see Mae Murray and Gloria Swanson co-starred. Then, indeed, would there be a rare combination of the modiste's and hairdresser's art! (*Metro.*)

Burning Sands

The popular sheik theme, with abductions, rivals, galloping Arabs, tents, intrigue, English girls, and all the dramatic accessories of desert love. Milton Sills makes a dignified hero, but he is smothered with story. There is nothing to specially recommend this picture from among the mass of other so-so desert films. (*Famous Players-Lasky.*)

The Frozen North

One of the cleverest slapstick comedies ever filmed, with droll, ingenious Buster Keaton poking uproarious fun and sly satire at the conventional ingredients of Northwest Mounted Police plots, episodes in "Nanook," and "snow stuff" in general. The mournful hero emerges from an eighteen-foot snow-drift clad in a straw hat and an immaculate suit of white flannels. Canines of every known breed draw his sledge, from bloodhounds to dachshunds. When a burlesque Nanook sets himself to fish through a hole in the ice, Keaton cuts another hole nearby, entangles his line with the Eskimo's, and presently behold the surprised Nanook yanked under and through the ice by his no less surprised fellow-fisherman! The usual domestic triangle also comes in for its share of good-natured "spoofing." Here is broad comedy that achieves the difficult art of being capital fun without becoming offensive. (*First National.*)

The Hands of Nara

Based on the popular faith-healing theme, but failing beautifully to arrive anywhere in particular, and achieving only a general effect of scatteration and incoherence. There are some very effective scenes of the recent revolution in Russia that furnish interest, even if they are not essential to the advancement of the plot. The latter is draggy enough at best, sorely beset by overlong titles, and, as a final blow, afflicted with anti-climax. Clara Kimball Young and Elliott Dexter head a capable cast that struggles bravely under a heavy load of discouraging material. (*Metro.*)

Just Dogs

A clean and clever animal comedy, in which is demonstrated that our human stars of the celluloid firmament haven't much over canines when it comes to portraying emotions and "pulling off stunts." The dogs in this picture show truly amazing intelligence. They cook breakfast, milk goats, catch fish, perform tricks, and even go through a dog wedding ceremony, with a daintily veiled blonde dog bride and a solemn brunette dog minister. Children go into raptures over this excellent little feature. (*Universal.*)

The Kentucky Derby

One of the wildest of the "mellers," multiplying many times the sensations and thrills of its parent play, "The Suburban." Never was medium more graciously kind to the essential ingredients of melodrama than the celluloid! An honest-to-goodness horse race, taken at the famous Churchill Downs track in Louisville on the occasion of Morvich's recent triumph, fairly drips with suspense, excitement and bona-fide color. Coincidence, however, is stretched to the breaking point and the old-fashioned plot material has moments of weariness for the sophisticated modern. Nevertheless, Reginald Denny acts for all he is worth in the role of the misunderstood son of a Kentucky colonel, and on the whole the picture furnishes acceptable entertainment. Children may view this picture without danger to their morals although not, perhaps, to their repose. (*Universal.*)

Manslaughter

A powerful picture preachment against motor speeding, and from every standpoint well worth sitting through. Thomas Meighan and Leatrice Joy carry magnificently the outstanding roles—those of a stern young district attorney and a capricious society girl whom he sends to prison for the good of her soul when, by her reckless driving, a motorcycle policeman is killed. The entire cast lives up to its opportunities, particularly fine being George Fawcett as the judge and Lois Wilson as the girl's maid, also imprisoned on a charge of theft. There are two rather serious "breaks" for the carping critic to set his teeth into, but they will not ruin the play's appeal for the average picture-goer. Typically Cecil DeMille is the introduction of lavishly-mounted scenes drawing a comparison between the extravagances of the modern era and of decadent Rome with its Bacchanalia and its speed-mad chariot races. (*Famous Players-Lasky.*)

The Man Who Played God

Here is a novel though somewhat far-fetched plot, drawn from Otis Skinner's play, "The Silent Voice," based on Gouverneur Morris' story. Unfortunately, George Arliss does not enjoy sufficient opportunity to prove himself the finished artist he is; but whether director or material is at fault it is difficult to say. Certainly the picture does not reach the standard set by his previous film, "The Ruling Passion." Here he plays the part of John Arden, a musician suddenly bereft of his hearing. On the verge of losing his reason through furious rebellion against fate, a chance suggestion from his butler opens up a new field of interest and a new life of service and personal happiness. The instrument of his restoration is a pair of field glasses, by means of which he uses his knowledge of lip-reading to "listen" from his elevated apartment to the conversation of couples occupying the park bench opposite. The sorrow and dire need thus disclosed inspire deeds of helpfulness, all performed so mysteriously and opportunely that the aid given seems indeed to come from above. Thus he "plays God." The character of the theme makes the picture a holiday offering *par excellence* and, it is needless to say, entirely satisfactory for children's viewing. (*United Artists.*)

The Man Who Saw Tomorrow

A picture of the "Eyes of Youth" type, except that this time it is a man who, through the connivance of a clairvoyant friend, pierces the veil of the future and sees himself as the husband of both one and t'other of two dear charm-ers, either of whom can be had for the asking. The atmosphere is out of the South Seas and New York Society bottles, and although the story places considerable strain on one's credulity, the picture makes the evening pass quickly and pleasantly. Thomas Meighan, Leatrice Joy, June Elvidge, Eva Novak, Albert Roscoe and Theodore Roberts constitute quite an aggregation of cinema favorites for a single production. No reason to strike this off the children's list. (*Famous Players-Lasky.*)

One Wonderful Night

More or less captivating, depending on one's mood, is this picture of love, intrigue and an "accommodation" marriage to save a million-dollar fortune. Action and excitement abound. Herbert Rawlinson and Lillian Rich perform creditably. O. K. for the juniors. (*Universal.*)

On the High Seas

The average movie fan can swallow one cataclysmic shipwreck and digest it easily. Two wrecks, however, stretch the fine quality of imagination rather dangerously. Dorothy Dalton and Jack Holt get wet pretty frequently in the course of the drama, but manage to survive for a dry ending. The whole picture is a jumble of inconsistent incidents. It should be retitled, "Alive Though Drowned." (*Famous Players-Lasky.*)

The Prisoner of Zenda

A stirring and delightful romance. Seldom does the producer find ready-made to his hand a story containing material so well adapted to picturization as "The Prisoner of Zenda." Anthony Hope's characters, born in a screenless age, would seem to have been conceived with a prophetic eye upon the future. Lewis Stone, playing the dual role of the royal inebriate and the English gentleman-at-large who substitutes for him at the coronation ceremonies and after, gives reality to both characterizations. Alice Terry is the Princess Flavia to the life, and certainly no better type could have been found than Ramon Navarro to portray the dashing, audacious Rupert of Hentzau. There is a swagger about his bearing and a twinkle about his eyes that captivates wholly. Every lover of romantic literature, young and old, will give thanks for the care that has been bestowed upon this classic. (*Metro.*)

Robin Hood

A sprightly drama and stately pageant of the merrie days of Robin Hood, unequaled for magnificence, lavishness and pictorial effect. Not only an interesting romance, but a pleasant lesson in English history. No boy or girl but will go more willingly to the perusal of Green's Short History after having viewed this visualization of some of its most fascinating pages. (*United Artists.*)

Skin Deep

This picture was produced mainly by way of furnishing American Legion propaganda, to show some of the injustices heaped upon the boys who have come back from Over There. Milton Sills makes a convincing thing out of the part of a former crook, given a new outlook upon life through his baptism by fire, and returned with the determination to "go straight." An operation in plastic surgery straightens his crooked nose, making him all but unrecognizable to his old friends. All honor to that crooked nose; it represents a veritable masterpiece of make-up! The film develops a double application of the title phrase, bringing out the fact that the hero's viciousness as well as his physical ugliness was only skin deep. Since the underworld figures prominently in this picture, the children had better remain in the nursery. (*First National.*)

GENERAL SCIENCE VISUALIZED

*A Handbook of Motion Pictures Especially
Planned for School Work*

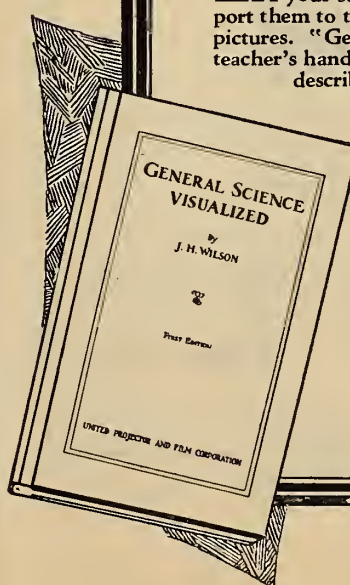
LET your students see the great things in science. Transport them to the wonders of the world by means of motion pictures. "General Science Visualized", the most complete teacher's handbook on visual education ever published, will describe in detail hundreds of films that fit into any well rounded science course.

"Experimental Physics"
*By Prof. W. D. HENDERSON
Univ. of Michigan*

A handbook to accompany twenty-three motion picture films that visualize important physics experiments as performed by Professor Henderson, personally.

In addition there are hundreds of other films especially chosen for their educational value in our libraries. Every film on Safety Standard non-inflammable stock. No booth nor licensed operator required as with theatre width film. Ask for a free copy of "Experimental Physics" and send 25c in stamps for 96 page text book "General Science Visualized."

United Projector & Film Corp.
69 West Mohawk St., Buffalo, N. Y.



Visual Instruction in Agricultural Colleges

(Continued from page 396)

tions by students or farmers. At the University of West Virginia the students themselves graded grain under the instruction and supervision of the grain demonstrators. An exhibitor who remarked to his class at Amherst, Massachusetts, that probably no one in that locality was interested in the sweet potato storage-house model, was answered by requests for a discussion from two Florida boys.

The Community Benefited

College students were not the only classes benefited by the exhibits. At Trenton the showing was for the general public. At Cornell it was given in connection with Farmers' Week. At Morgantown high school juniors and seniors

were brought in organized classes, the Campus Club of thirty members attended in a body, and the exhibits were open two evenings a week for the townspeople. The motion pictures, "Uncle Sam—the World's Champion Farmer," "Out of the Shadows" and "Exit Ascaris," were shown in the high school auditorium. The report from one southern college stated that several of the professors attended nearly every class and took notes for future class work. Students were usually required to take notes and to make some report on the demonstrations.

"The exhibit has been worth several thousand dollars to the school," declared a professor in a college that had succeeded in mak-

ing especially advantageous use of the exhibits and demonstrations, both for themselves and for their community.

Although the work this year was regarded largely as an experiment, it was planned on broad lines and the exhibits have been shown from the deep snows of Massachusetts to the palms and gray mosses of Louisiana. The results, therefore, amply demonstrate that the Federal Department of Agriculture can be of very definite service to students of agricultural colleges throughout the country, through the medium of visual education.

JUST FINISHED!

A new set of

Stereoscopic Pictures and Lantern Slides on Natural History

These life-like pictures, far superior to ordinary photographs, are a splendid help in giving Visual Instruction. Complete descriptive label accompanies each stereograph, printed directly on the back.

Sample collection and complete list on request.

H. LUSCHE

434 N. Parkside Ave.

Chicago, Ill.



For projection of lantern slides in the school, lodge, church, family circle; no place too small or too large for the

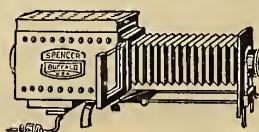
SPENCER DELINEASCOPE

It's as far ahead of the old Stereopticon as the Automobile is of the wheelbarrow. Five models. Prices from \$25.00 to \$185.00.

Send for illustrated folder

SPENCER LENS COMPANY

Buffalo, N. Y.



SIMPLICITY
DURABILITY
EFFICIENCY

Correct English—How to use it

JOSEPHINE TURCK BAKER, Editor
A Monthly Magazine—\$2.50 The Year
Send 10 Cents for Sample Copy to
Correct English Publishing Company
Evanston, Illinois

Sargent's Handbooks

American Private Schools

8th Edition, 1922-1923, 896 pages;
round corners, crimson silk cloth,
gold stamped, \$4.00

A Guide Book for Parents
A Compendium for Educators

Annual Review of Educational
Literature and Events

NEW ENGLAND

3d Edition, carefully revised throughout, 8 vo., 928 pages, 4 maps in 5 colors, 25 other maps and plans, 52 illustrations.
Full leather, \$5.00.
Silk cloth, \$4.00.

All the Principal Motor Routes are clearly shown. Every town and city in New England of any importance is described. The history and present-day activities are given in detail.

It is the Only Book That Treats
New England as a Whole

PORTER SARGENT

14 Beacon Street
BOSTON

MOTION PICTURE USERS

Schools, Churches, Institutions, Manufacturers and other non-theatrical users, contemplating the purchase of motion picture machines and films, should obtain a booklet of valuable information which is supplied without cost by

The Associated Manufacturers of Safety
Standard Films and Projectors, Inc.

Suite 1419, 440 4th Ave., New York City



The Film Field

IN OFFERING these selections VISUAL EDUCATION in no way guarantees the value or suitability of the films. The list represents merely the most careful choice possible to make from the data given out by the producing companies. In general, films should be viewed by qualified judges before being shown to school children. All entries are one reel in length unless otherwise specified. The producer is indicated by the letter *p* following the sketch, the distributor by the letter *d*. For addresses consult list in this issue.

AGRICULTURE

FARMING IN ONE LESSON. A film that turns the tables upon the usual farm comedy. Instead of caricaturing the farmer in the usual movie-comedy manner, a young city couple with brilliant dreams of the open country and with the ambition to own a farm, are shown going through all the antics possible under the situation. This picture was produced to fill the call for a clean comedy to lighten a heavy educational program. A hearty laugh is often more valuable than a hard lesson. Two reels. (*p* and *d*, Homestead Films.)

MAKING THE DESERT BLOSSOM. Nothing could be more vivid than this picture, showing how the arid wastes of the Great West are transformed by irrigation into fruitful fields. Each step is strikingly shown: clearing the land; building the great concrete dams and canals; how the water is turned loose from mountain streams to moisten the growing plants and grains; how homes, churches and schools spring up. The picture was filmed by the U. S. Reclamation Service and edited by the American Red Cross Bureau of Pictures. (*d*, Soc. for Visual Edu.)

HORSE SENSE. Showing the breaking and training of colts and horses by Prof. William Penn Newell of Illinois. Every move of Mr. Newell's humane system of breaking and training is shown in a clear manner by pictures and animated drawings. (*p* and *d*, Homestead Films.)

PRODUCTION'S PULSE. How Government crop reports are made by the work of 215,000 crop reporters, and how they are released to the public, placing the farmer on a par with the speculator in farm products; the crop report is followed from the field to the newspaper. 2 reels. (*p* and *d*, U. S. Dept. of Agric.)

DAIRY CATTLE AND THEIR SELECTION. Showing that among domestic animals the highly-developed dairy cow is the most efficient producer of human food. There are wide differences in cows, in both the amount and economy of their production. By paying close attention to the physical conformation, higher-producing cattle can be selected. The film shows clearly that some cows are more productive than others, even with the same feed and care; that physical conformation is a vital factor in milk production; and how constitution, feeding capacity, formation of milking organs, etc., affect production. (*p* and *d*, Soc. for Visual Edu.)

GEOGRAPHY

PACK TRAIN TRIP THROUGH THE NATIONAL FOREST. A trip with mules, a tent and a canoe across the northern Cascades, fording mountain streams and crossing glaciers. (*p* and *d*, U. S. Dept. of Agric.)

A LETTER FROM ROME. Antonio, an Italian war-orphan, who lives at the farm school aided by the Junior American Red Cross on the famous Janiculum Hill near Rome, writes to his friends in America and

tells them the history of the city he loves so well. The pictures unfold Antonio's story. There is the Forum; the Arch of Constantine; the Coliseum; the Castle of St. Angelo; the beautiful church of St. Peter; the Vatican, the home of the Popes for hundreds of years; the Temple of Vesta, and the fountain of Trevi, of which legend says, "If you drink of its waters you will some day return to Rome." (*p*, Amer. Red Cross; *d*, Soc. for Visual Edu.)

QUAINT PROVINCETOWN ON CAPE COD. Views of the picturesque little fishing town with its crooked, narrow streets and primitively simple houses. There are many intimate glimpses of the fishermen mending their nets, returning home with loaded smacks, or telling wild yarns of the sea to little boys and girls. 600 feet. (*p* and *d*, Geo. Kleine.)

GRIPSHOLM CASTLE. A composite reel showing Gripsholm Castle in Stockholm, Sweden, famed for its beauty, and Helsingfors, the capital of Finland, with its busy market-place, interesting buildings, parks, etc. (*p*, Swedish Biograph; *d*, Nat'l Non-Theat.)

HEALTH AND HYGIENE

UNHOOKING THE HOOKWORM. A study of hookworm disease and methods of waging war against it. The reel pictures the tiny hookworm under a microscope, and then shows a typical group of its victims. Moving pictures show how the baby hookworms are carried on the feet of children, chickens, hogs, etc.; how they crawl up grass blades and enter drops of dew, where bare feet easily pick them up. The earliest symptoms are shown and diagrams visualize the progress of the worm through the human system. The different steps in the medical treatment given to cure the disease are clearly indicated. (*d*, Soc. for Visual Edu.)

SAFEGUARDING THE NATION. Scientific experiments conducted to discover the physiological and psychological effects of small and large amounts of alcohol upon the structure and functions of the human body. The cell-structure of the body is shown by microscopic photography; the life-process of the cell is made clear by a study of the amoeba and by animated diagrams. The psychological results of alcohol upon the nerve cells is demonstrated in the laboratory and applied to the world of industry. 5 reels. (*p* and *d*, Carter Cinema.)

SAVING THE EYES OF YOUTH. Reel 1 is a plea for the use of silver nitrate drops in babies' eyes at birth; Reel 2 treats of diseases of the eyes in childhood; Reel 3 shows the opportunities for Sight Saving Classes in the public schools. 3 reels. (*p*, Nat'l Com. for Prevention of Blindness; *d*, Worcester Film Corp.)

BEFORE THE DOCTOR COMES. First Aid in coal mines, steel mills and railroad yards, machine shops, lumber camps, and other places where accidents daily occur and where a doctor's services are not always immediately available. The result is a film of broad edu-

cational value, rare interest and swift action. The graphic portrayal of First Aid rendered by trained fellow-employees shows unforgettably how potent a factor this vital knowledge may be in saving human life. Even John Robinson's elephants practice it! (*p*, Amer. Red Cross; *d*, Soc. for Visual Edu.)

THE KID COMES THROUGH. The "Kid" is just an average youngster with an aversion to personal cleanliness and a preference for "coffee 'n' sinkers." He sleeps with his windows closed, learns to smoke cigarettes, and in other ways tries to emulate Billy, the leader of the gas-house gang. The climax comes when the "Kid's" sister, a strong follower of the rules of health, beats up the young gangster for trying to induce her brother to steal. Whereupon the "Kid" joins a Scout troop, gets into physical condition, and himself wins a clean victory over Billy. (*p* and *d*, Nat'l Tuberculosis Assn.)

HISTORY AND CIVICS

MY FATHER. ("Son of Democracy" series, Chapter 2.) The boyhood of Abraham Lincoln, including incidents showing how Abe's ability to read saved his father from losing his farm. 2 reels. (*p*, Benjamin Chapin; *d*, Com. M. P. Serv.)

DEMOCRACY IN EDUCATION. The gradual development of equal educational opportunities. Pupils are shown using the school in a democratic manner; different phases of training in self-appraisal, self-control and co-operation are pictured. The exercise of the fundamentals of democracy in school lays the foundation for a free and independent nation. (*p* and *d*, Ford M. P. Lab.)

THOMAS JEFFERSON. One of the reels in the "Great American Statesmen" series, picturing Jefferson's birthplace at Shadwell, Va.; William and Mary College, from which he graduated; scenes depicting his life, achievements and influence upon history; drawing up the Declaration of Independence; a photographic reproduction of the document; Independence Hall; his home and grave in Monticello, Va. (*p*, Kineto Co. of Amer.; *d*, Hodkinson.)

LIGHT OF A RACE. The principal steps in the development of artificial illumination. The film shows the caveman kindling fire with sparks from flint; primitive man as he pushes a stick in a groove; the Indian driving the fire drill; how the first torch, stone lamp, candle, kerosene oil lamp and gas made their appearance; Franklin and his kite; the Leyden jar; early electrical experiments; the arc light, and finally Edison and the incandescent lamp. (*p* and *d*, Gen. Elec. Co.)

STRUGGLE OF FRENCH AND ENGLISH FOR NORTH AMERICA. In this reel the main campaign movements in the French and Indian War are covered. Animated maps point out the situation that confronted the English; the French forts controlling the Mississippi

MINUSA
Portable Screens

Are invariably the
choice of judicious buyers
of School Equipment.

Samples and literature upon request

MINUSA CINÉ SCREEN CO.

ST. LOUIS, MO.

'World's Largest Producers of
Motion Picture Screens.'

Valley; the claims of the English to the western lands, and the three routes by which the French lines could be pierced. Maps and motion picture views visualize the scenes of the struggle. (*p* and *d*, Soc. for Visual Edu.)

HOME ECONOMICS

THE HAPPIER WAY. How the women of Pleasant View got in touch with labor-saving devices for household use; how a farm water system gave Mrs. Little time for real enjoyment of country life; and how other conveniences made farm life more attractive. (*p*, U. S. Dept. of Agric; *d*, Homestead Films.)

DRYING FRUITS AND VEGETABLES IN THE HOME. Types of driers; methods of drying, packing, conditioning and labeling tomatoes, carrots and other root vegetables, corn, berries and apples; a luncheon of dried delicacies, attended by the wives of Cabinet officers. (*p*, and *d*, U. S. Dept. of Agric.)

WHY EAT COTTAGE CHEESE? Mrs. Brown learns how cottage cheese is made from skim milk at a modern creamery, how it is marketed, and how to use it in the home. She then serves it to her family. (*p* and *d*, U. S. Dept. of Agric.)

HOW IT IS DONE

GATHERING BANANAS AND COCONUTS. A scenic-industrial, picturing the industry at Jamaica, W. I. The fruit is gathered, the carts are piled high, and the ten oxen ford through the Rio Grande river on their way to the railway. Here the cargo is placed on cars to be shipped to the seaboard and thence by boat to northern markets. 350 feet. (*p* and *d*, Geo. Kleine.)

WHITE PINE, THE WOOD OF WOODS. Eastern white pine from log to lumber, illustrating its wide range of usefulness. Lumber yards; stave and box factory; making screen doors, window screens, boxes, barrels and buckets. (*p* and *d*, U. S. Dept. of Agric.)

AN ELECTRIFIED TRAVELOGUE. The electrification of railroads, showing how the engines are assembled and a number of different railroads using electricity for power. Incidentally introduces some wonderful glimpses of mountain scenery. The picture begins by showing the various methods of travel from the earliest times down to the present. (*p* and *d*, Westinghouse.)

MEAT PACKING. Reviewing the importance of the meat-packing industry in this country, giving interesting glimpses of farms and ranches where cattle are raised, and tracing the progress of the meat through the packing house. (*p* and *d*, Ford M. P. Lab.)

LITERATURE

BLACK BEAUTY. An excellent film version of Anna Sewall's famous book. Black Beauty's life from colthood to maturity, his trials, pleasures and fears, his contact with human beings and other horses, his dangers and triumphs, his connection with a charming love story, are all delightfully pictured. Thrilling are the scenes of the hunt, the burning of the stables, the cross-country race when Black Beauty saves the day. Jean Paige is the girl in the case. 7 reels. (*p* and *d*, Vitagraph.)

LITTLE ORPHANT ANNIE. James Whitcomb Riley's beloved poem transferred to the screen, with each ghost and goblin doing his best to visualize the fate that is in store for boys and girls who "don't watch out." 5 reels. (*p* and *d*, Lea-Bel.)

THE LAMPLIGHTER. There is scarcely a child who has not read this favorite story of the adventures of the little girl whom a lamplighter befriended. And every boy and girl will be glad to see Mary Cummins' book in film form. 5 reels. (*p* and *d*, Fox.)

NATURE STUDY AND OTHER SCIENCES

BIRD LIFE STUDY—Part 2. Nest building and housekeeping habits of the yellow hammer, hedge sparrow, thrush, finch, chaffinch, linnet, bullfinch, sedge and reed warblers, red bunting, wagtail, blackbird and dipper, showing also how they hunt the food with which to feed their hungry young. (*p* and *d*, Beseler.)

THE ETERNAL QUESTION. This reel, one of Park's Popular Science Series, treats of the evolution of the solar system. (*p*, Park; *d*, Nat'l Non-Theat.)

HOW LIFE BEGINS. A microscopic biological picture, giving with scientific accuracy the methods by which new plants and animals come into existence. Beginning with the low-

est form of life—the protozoan—it gives the complete life-cycle of the sweet pea, the frog, the butterfly, the chick and the white rat. By its logical and comprehensive manner of presenting facts it imparts a clearer understanding of life and a more reverent regard for its great responsibilities. 4 reels. (*p* and *d*, Carter Cinema.)

RECREATIONAL PROGRAMS

SHADOWS AND SUNSHINE. Baby Marie Osborne in the role of a little girl who, with her smiles and loving ways, wins the heart of a stern grandfather. 3 reels. (*p* and *d*, Pathe.)

THE FAIRY AND THE WAIF. A charming picture with Mary Miles Minter as a make-believe fairy in a Christmas ballet who escapes from the stage and takes refuge in an old barrel in which a little street waif has made his home. This picture is a great favorite with children. 5 reels. (*p*, Amer. Film Co.; *d*, Lea-Bel.)

SUDDEN JIM. The picturization of a Saturday Evening Post story by C. B. Kelland. A square-jawed, determined young fighter takes

over a clothes-pin factory in "a town of about a dozen people and five hundred folks" and defies a combine that is trying to control the market and the politics of the county. 5 reels. (*d*, Alex. Film Corp.)

RELIGIOUS AND INSPIRATIONAL

THE VISION OF THE SHEPHERD. To a shepherd appears a vision of Christ, Who asks if his sheep are safe in the fold. The shepherd answers that they are, not knowing that his daughter has gone to the city with the stranger who has beguiled her. The shepherd follows and finds her saved from a mock marriage through the aid of Christian mission workers. Again the vision of Christ appears, repeats the question, and is told that the lost lamb has returned to the fold. 2 reels. (*d*, Nat'l Non-Theat.)

THE STREAM OF LIFE. A picture that is full of human appeal and deep religious feeling, following the life of a country lad from the quiet pool and laughing brook of childhood to the troubled stream of maturity and the placid ocean of old age. The picture has won high praise from the ministry. 6 reels. (*p* and *d*, Plymouth Film Corp.)

The High School Quarterly

J. S. Stewart, Editor, Athens, Ga.

Official organ of the Southern Commission on Accredited Schools, of the Georgia High School and National High School Inspectors' Association. Listed regularly in the International Index. Eleventh Volume.

Subscription \$1.00 a year

25c a copy

Advertising Rates on Application

DEMOCRACY IN EDUCATION

A two-reel film demonstrating the Courtis Standard Practice Tests in Handwriting and their influence in developing the qualities of self-appraisal, self-direction, honesty, and co-operation.

Historical scenes of the growth and development of the United States.

Free distribution, but transportation charges to be paid by the exhibitor.

WORLD BOOK COMPANY

Yonkers-on-Hudson, New York

VOCATIONAL TRAINING

THE UNIVERSAL MILLING MACHINE AND ITS OPERATION. A complete course of instruction in the use of the Universal Milling Machine, showing the machine in operation and explaining fully the principle of the rotary cutter and how work is fed to it. Ultra-rapid (slow-motion) closeups demonstrate the principle of the action of cutting tooth and uniformity of automatic feed. The assembly of the milling machine is pictured, clearly showing the principal parts and the function of each. Various phases of operation—both simple and complex—are visualized, together with the use of milling machine attachments. 8 reels. (p and d, Soc. for Visual Edu.)

MANUFACTURE OF PORTLAND CEMENT. Commences with a panorama of cement works, followed by power plant scenes. In this case the cement rock is mined underground, and details of drilling, loading, shooting holes, and shooting and loading out the rock are shown. The scene then changes to the plant, where all the work of conveying and grinding the rock, handling the coal, etc., is seen in great detail. Next the finishing cement leaves the tube mills and is conveyed to storage bins, from which it is taken to be shipped in sacks as needed. Details of testing cement briquets are shown. The film ends with a view taken along a concrete highway, where roadway, fence and telegraph poles are all made of cement. 2 reels. (d, Bureau of Mines.)

Where to Book These Films

ONLY producers and exchanges whose films are included in this month's instalment of "The Film Field" will be found listed here. Principal offices only are given, on account of space limitations, although the larger film companies maintain a great many branch offices. Inquire location of nearest branch when writing to main office, mentioning that you saw the film listed in **VISUAL EDUCATION**.

Alexander Film Corporation, 130 West 46th St., New York City.
 Beseler Educational Film Co., Inc., 71 West 23d St., New York City.
 Carter Cinema Producing Corporation, 220-224 West 42d St., New York City.
 Community Motion Picture Service, Inc., 46 West 24th St., New York City.
 Ford Motion Picture Laboratories, Detroit, Michigan.
 Fox Film Corporation, 10th Ave. and 55th St., New York City.
 General Electric Company, Schenectady, N. Y.
 W. W. Hodkinson Corporation, 469 Fifth Ave., New York City.
 Homestead Films Inc., 7510 N. Ashland Ave., Chicago.
 George Kleine Motion Picture Films, 116 So. Michigan Ave., Chicago.
 Lea-Bel Film Company, 804 So. Wabash Ave., Chicago.
 National Non-Theatrical Motion Pictures, Inc., 232 West 38th St., New York City.
 National Tuberculosis Association, 370 Seventh Ave., New York City.
 Pathe Exchange, Inc., 1600 Broadway, New York City.
 Plymouth Film Corporation, 46 West 24th St., New York City.
 Society for Visual Education, Inc., 806 West Washington Blvd., Chicago.
 U. S. Bureau of Mines, Experiment Station, Pittsburgh, Pa.
 U. S. Department of Agriculture, Washington, D. C.
 Vitagraph, Inc., E. 15th St. and Locust Ave., Brooklyn, N. Y.
 Westinghouse Electrical Mfg. Company, East Pittsburgh, Pa.
 Worcester Film Corporation, 130 West 46th St., New York City.

New York Minneapolis Chicago

The Educational Digest

(The National School Digest)

A MINE OF EDUCATIONAL INFORMATION

The Digest focusses the news of the Educational world in organized—classified—condensed form.

Progressive Superintendents, Principals, Teachers who desire to keep in touch with the significant events and rapid changes in the world of Education read The Educational Digest. Many readers have called it "The Literary Digest of the Educational World."

Subscription price \$3.00 per year.

Attractive club offers given on request.

Send all subscriptions to
Office of Publication

The Educational Digest

1405 University Avenue S. E.,
Minneapolis, Minnesota.

THE SCIENTIFIC MONTHLY

An illustrated magazine, devoted to the diffusion of science, publishing articles by leading authorities in all departments of pure and applied science, including the applications of science to education and society.

CONTENTS OF THE DECEMBER ISSUE

The Vegetation of Australia and New Zealand—Professor D. H. Campbell

Easy Group Theory—Professor G. A. Miller

The History of the Calorie in Nutrition—Dr. Mildred R. Ziegler

Social Life Among the Insects—Professor William Morton Wheeler

The Marine Fisheries, the State and the Biologist—William F. Thompson

De Anopluris—Professor G. F. Ferris

Typographical Maps of the United States—Professor William Morris Davis

What Next in Immigration Legislation—Professor Robert deC. Ward

A Modern Mecca—Professor A. E. Kennelly

The Progress of Science

Rewards for Working Inside the Atom; How the Chemist Moves the World; The Cost of Niagara; Look Out for Alpha Centauri; New Light On the Origin of Life; Scientific Items

Annual Subscription \$5.00

Single Numbers 50 Cents

THE SCIENCE PRESS

Grand Central Terminal

New York City

Do You, Too, Want Extra Spending Money?

VISUAL EDUCATION will be glad to show you how you can add to your income through work that is not only pleasant, but highly profitable as well.

If you have a few hours a day to devote to it, you will be surprised at the amount of money you can make by co-operating with us to build up our family of readers.

VISUAL EDUCATION is such an acknowledged leader in this great educational movement, its articles are of such timely and varied interest, that it is no exaggeration to say that the magazine "sells itself."

All it needs is an introduction.

Hundreds of people in all parts of the country are availing themselves of the opportunity to make extra spending money by acting as our Special Representatives.

Clip the coupon NOW and learn full particulars of this offer.

VISUAL EDUCATION
806 W. Washington Blvd.
CHICAGO, ILLINOIS

VE 12-22

I am interested in your proposition to make additional spending money. Please send full particulars by return mail.

Name

Street

City State

Position

4 Famous Little BOOKS Given Away

with each six months' subscription to the Business Philosopher.

The four booklets are:

(1) **AS A MAN THINKETH**—One of the most powerful books on thought mastery ever written. The power of right thinking simply explained.

(2) **OUT FROM THE HEART** — A sequel to "As a Man Thinketh." The directions on the formation of habits of right thinking are invaluable.

(3) **THROUGH THE GATE OF GOOD**—To quote a sentence: "The essential difference between a wise man and a fool is that the wise man controls his thinking, the fool is controlled by it."

(4) **MORNING AND EVENING THOUGHTS**—Choice meditations, poetry and prose, from James Allen, one of the world's great teachers.

The subscription

The subscription will start with the December issue, rich with Yuletide sentiment, and end with May. You will be pleased by Orison Swett Marden's psychology of success, by A. F. Sheldon's philosophy of SERVICE, as enunciated by Rotary, by the symposium on the purpose and meaning of life and the inspirational articles by Jerome P. Fleishmann, who is considered by many the equal of Frank Crane.

You will be interested in the discussions by well known leaders on current problems, such as

**"THE ENFORCEMENT OF
CRIMINAL LAW"**

"THE ALLIED DEBT"

"THE MODERN DANCE"

"INTERNATIONALISM"

You will find

The department of Applied Psychology non-technical, offering suggestions which you may find valuable in maintaining your health and happiness and attaining your success.

The Philosopher will make a valuable and interesting friend for your long winter evenings that are ahead—you will always cherish his friendship.

The six months' subscription is \$1.00; a dollar bill or stamps will do. **THE 4 BOOKLETS ARE SENT FREE.**

ADDRESS:

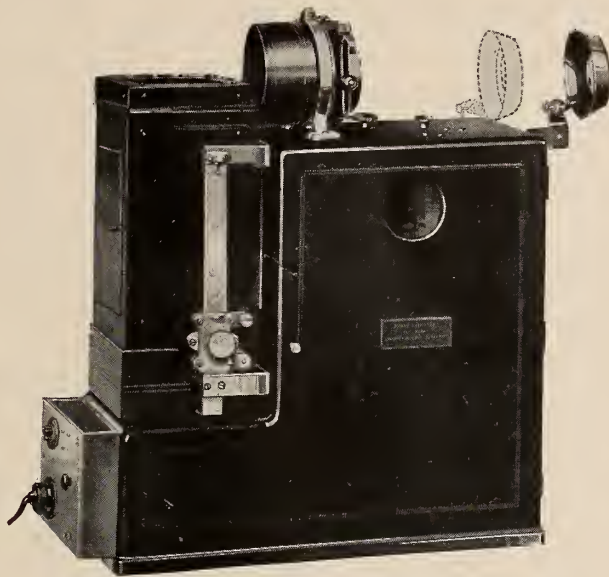
The Business Philosopher

140-144 Monroe Ave.,
MEMPHIS, TENN.

AN IDEAL CHRISTMAS GIFT

NEW ACME S.V.E.

Now Sold on Easy Payments



Improved Acme S.V.E. combined film-slide projector which stops to show still pictures from the film.

Schools and Churches Secure Acme Projectors on Easy Terms

To assist them in securing the benefits which accompany the use of motion pictures, we have arranged to sell a limited number of improved Acme projectors to schools and churches, on a small initial payment, followed by six equal monthly installments.

There are many ways of raising funds to pay for Acmes. Many churches and schools have worked out plans by which Acmes pay for themselves, leaving a balance for incidental expenses. We will gladly send details of such plans.

The improved Acme S. V. E. combined motion-picture projector and stereopticon with cast aluminum case and 1000-watt incandescent lamp, and the new Acme suitcase Model 12 with 400-watt incandescent lamp, are being sold on extended time payments.

Improved Acmes Show Still Pictures From Film and Have Many Other Exclusive Advantages

Rewind standard 1,000 foot reel in less than a minute. Focus and frame instantly while film runs. Perfected take-up insures even tension of film and prevents lagging. Accurate design and exact construction assure noiseless operation and long wear. New type fan gives maxi-

mum ventilation. Pilot lamp illuminates interior for threading. Operating buttons are plainly marked to show their function. Metal magazines entirely enclose film reels inside projector. Handy. Reliable. Sturdy. Adaptable. Established. Endorsed by users. Guaranteed.

Write For Full Information to Department S.V.E.

ACME MOTION PICTURE PROJECTOR COMPANY
806 West Washington Boulevard, Chicago, Illinois

Building—operator—audience,—
can be safe only if the film is *safe*

EASTMAN SAFETY FILM

removes unnecessary risk from portable
projection.

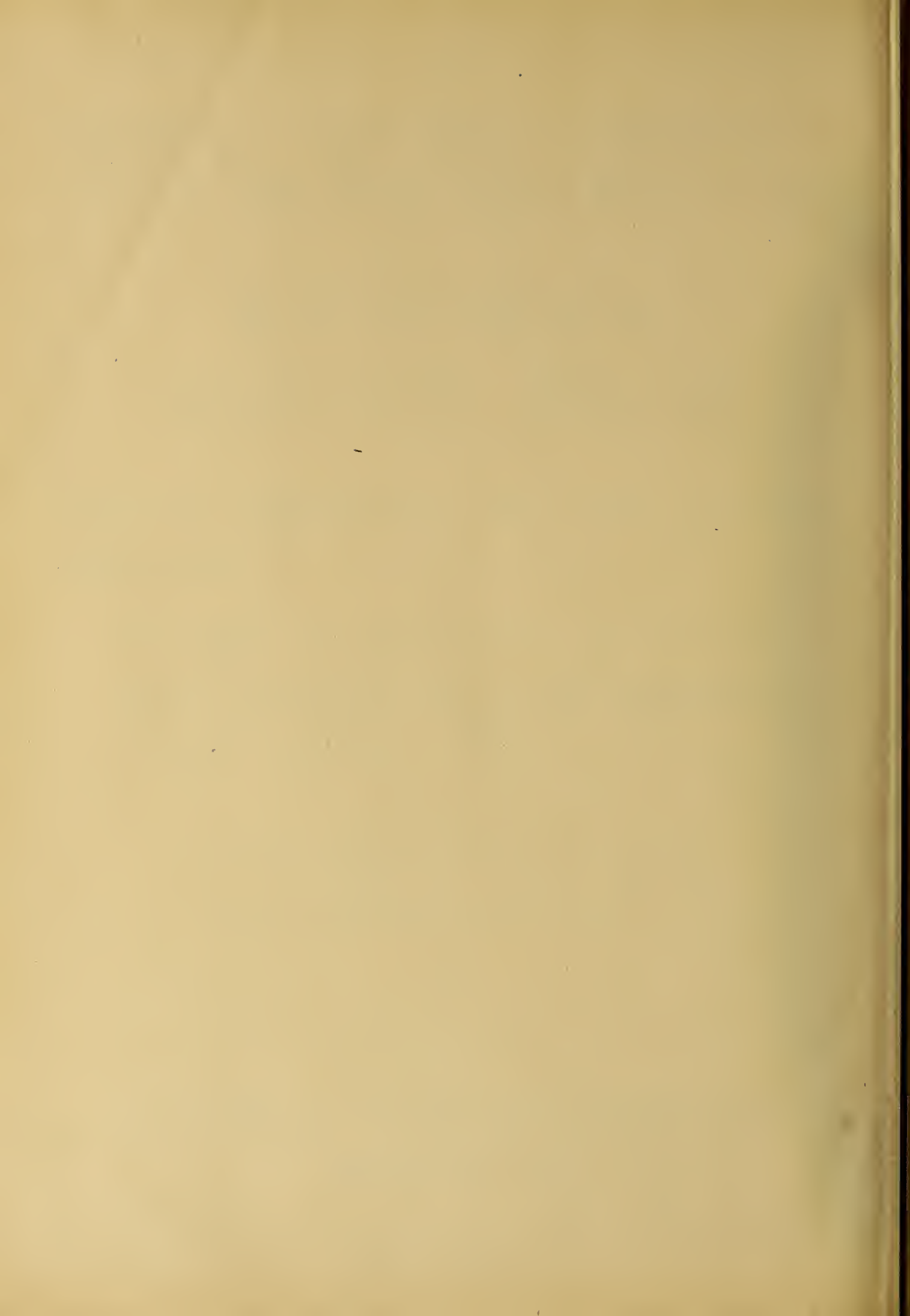
Identified in *black* letters on its transparent margin by the words “Eastman” “Kodak” “Safety” “Film”.

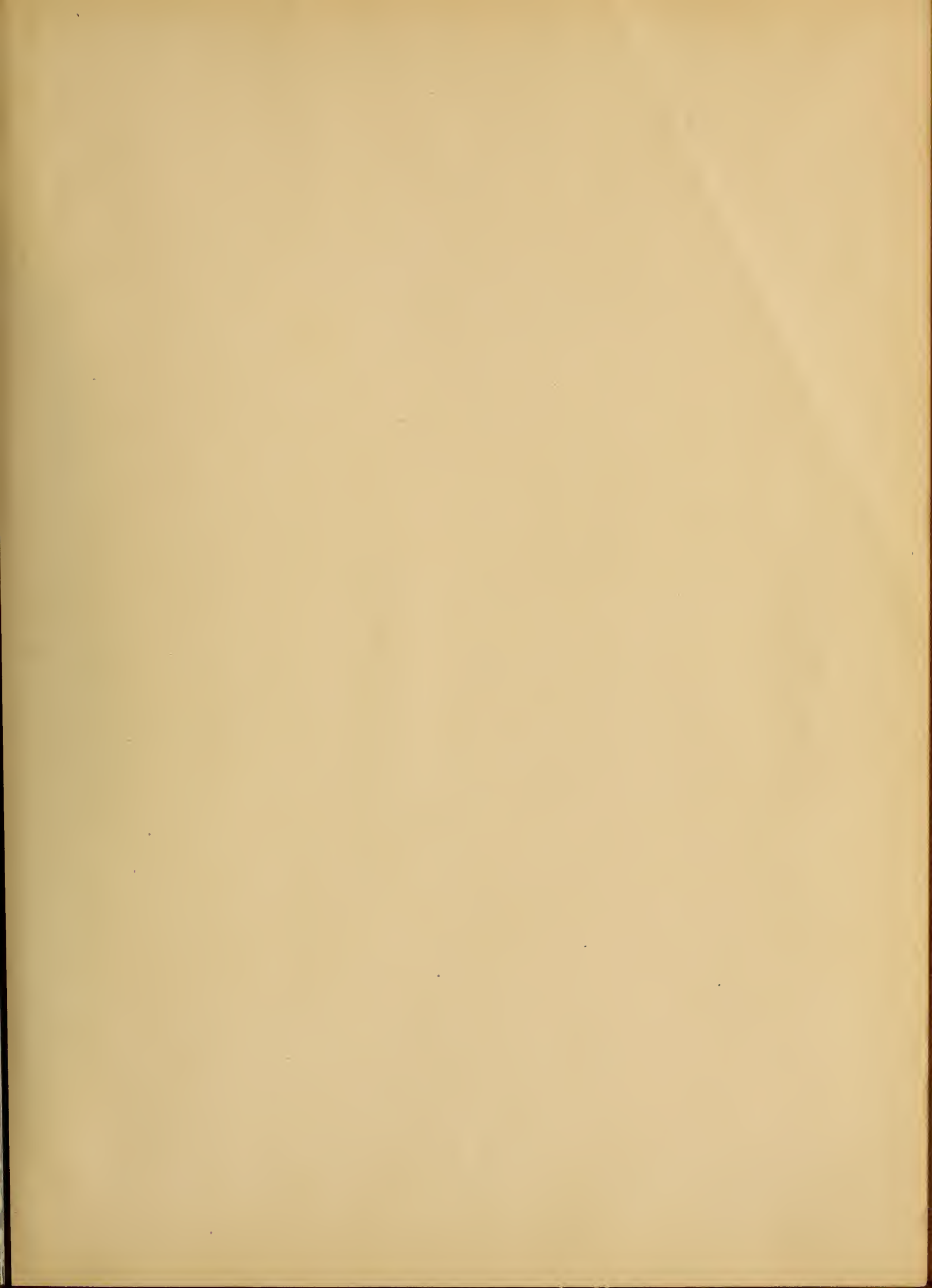
Eastman Safety Film is furnished
in two widths, $1\frac{3}{8}$ inches and $1\frac{1}{10}$
inches, Eastman perforation.

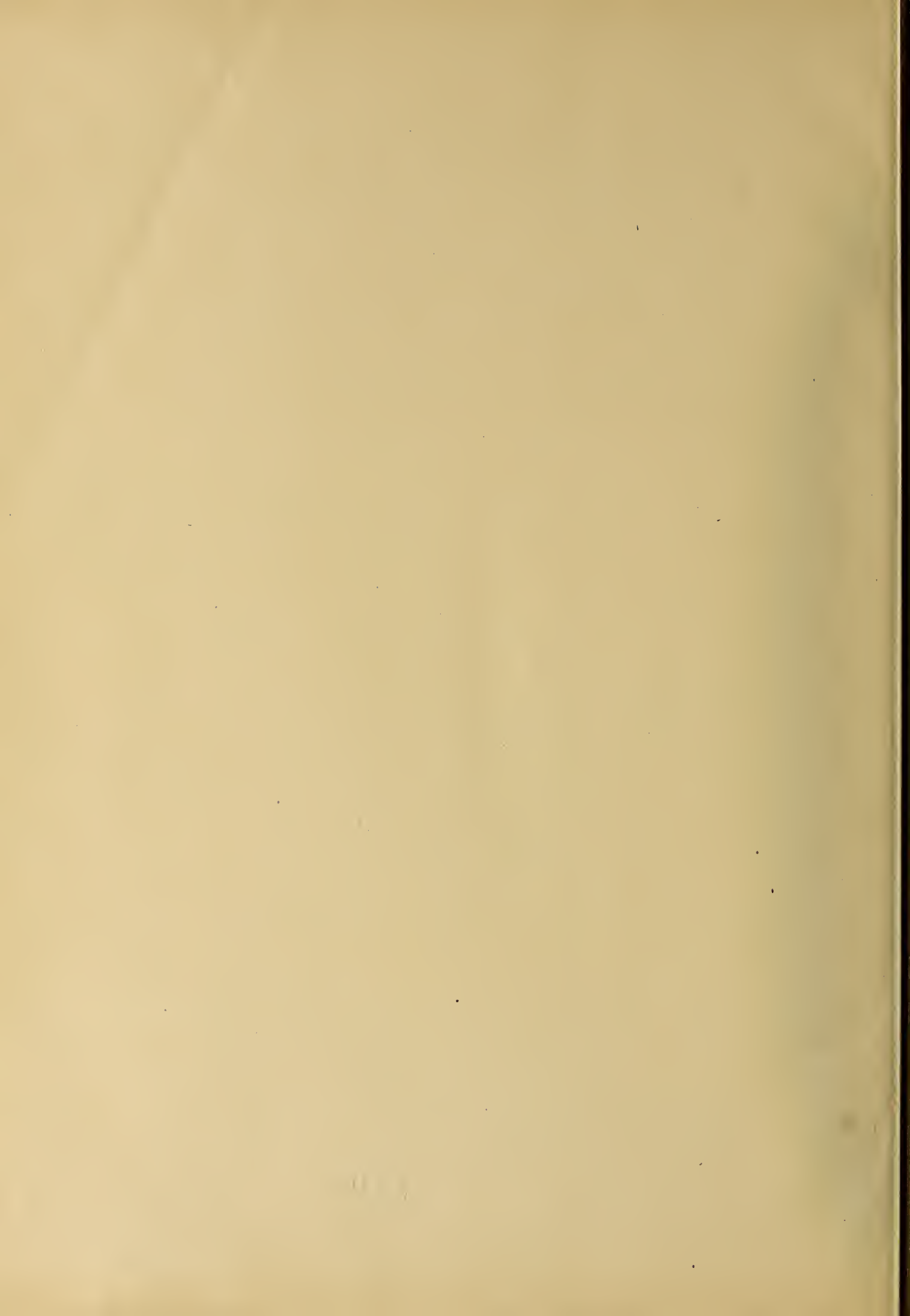
EASTMAN KODAK COMPANY

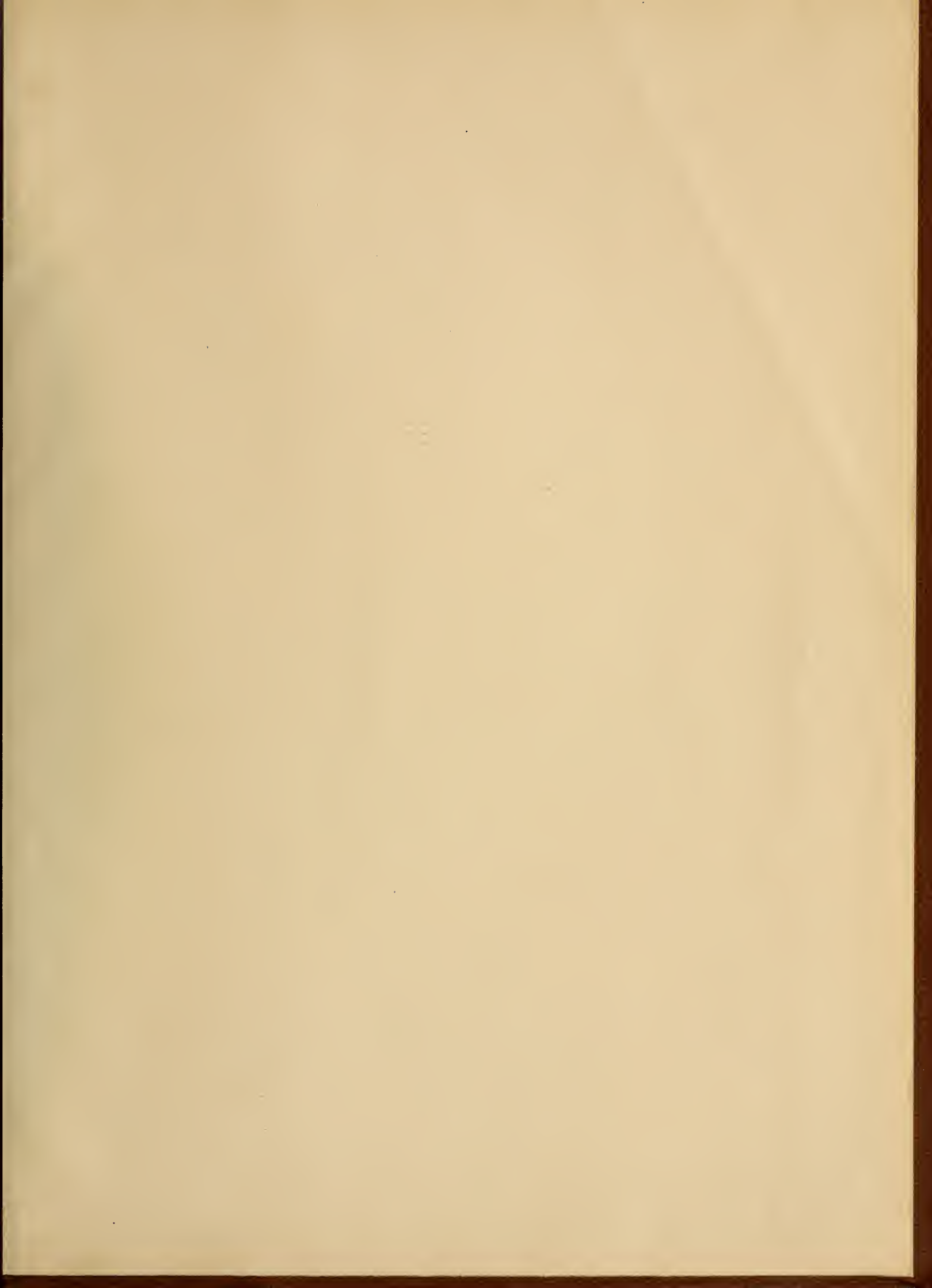
ROCHESTER, N. Y.

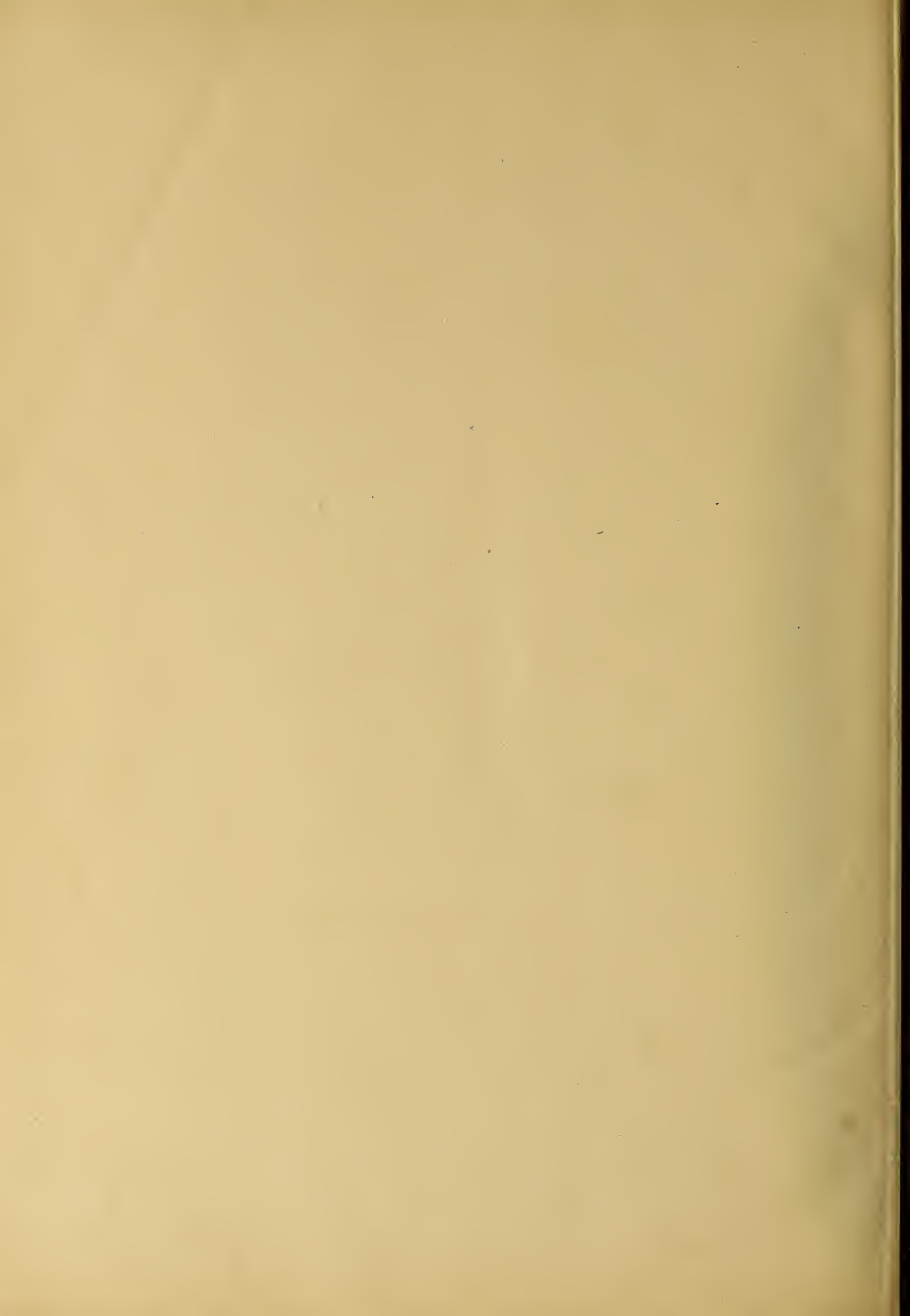


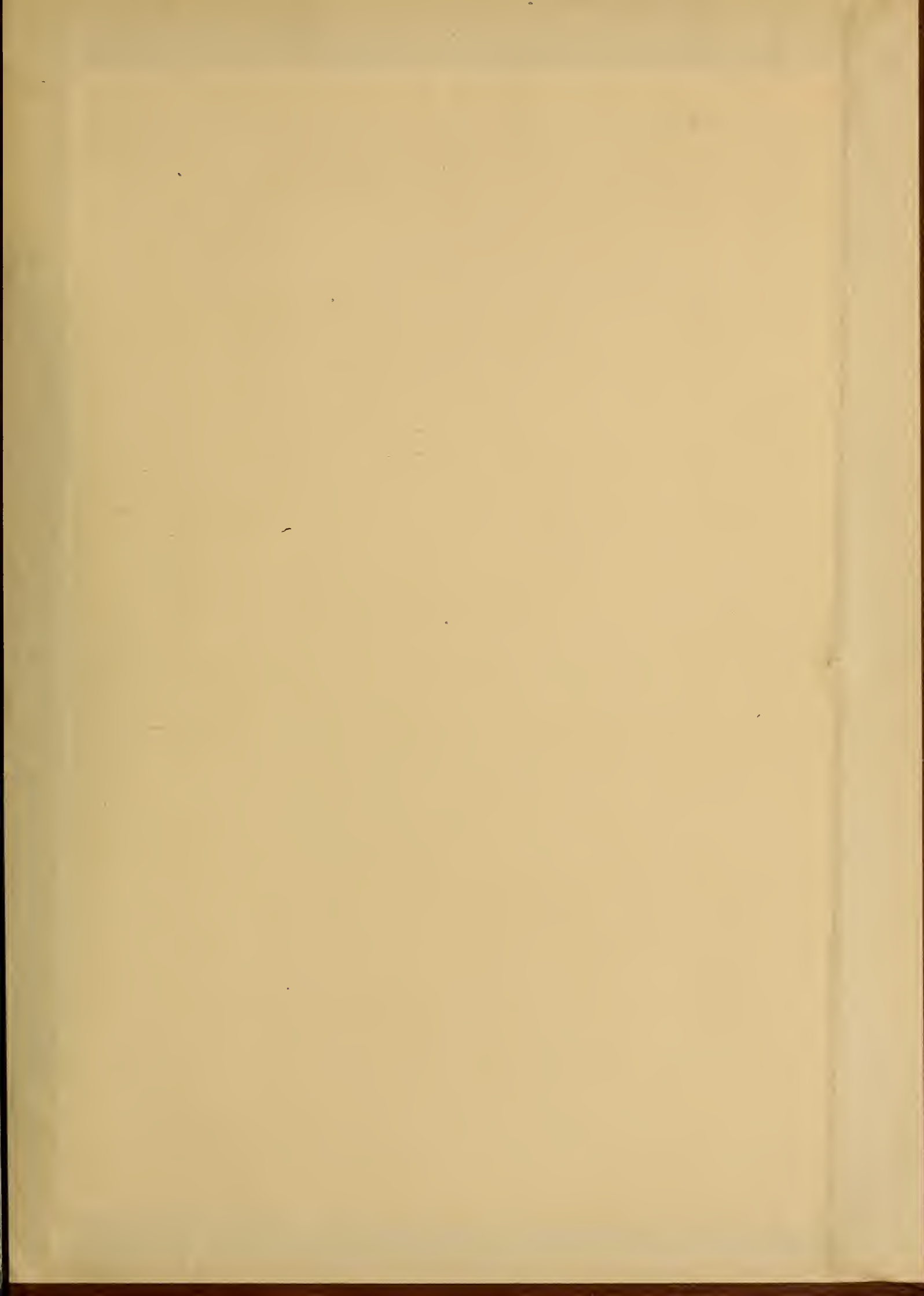












LIBRARY OF CONGRESS



0 013 440 789 A